

THE MODERN HOSPITAL

*A Monthly Journal Devoted to the Building, Equipment and Adminis-
tration of Hospitals, Sanatoriums and Allied Institutions, and to Their
Medical, Surgical and Nursing Services*

Vol. XX

May 1923

No. 5

800 YEARS OF SERVICE AT ST. BARTHOLOMEW'S

BY RODEN H. P. ORDE, LONDON, ENGLAND.

IN THE year 1123 Rahere founded in fulfill-
ment of a vow and in obedience to the com-
mand of St. Bartholomew, conveyed to him in
a vision, a hospital and a monastery at Smith-
field. Rahere was a man of humble birth who
had by certain ingratiating talents risen to a
position of some influence at the Royal Court.
Stricken by illness while on a pilgrimage to Rome,

to build at Smithfield a church that should bear
his name. Rahere on his return to England se-
cured the aid of the king and of the church—for
he was a cleric as well as a courtier—and on the
chosen site carried out the command of the saint.

The vows of the penitent are many; few have
found a nobler fulfillment. For 800 years, with
one brief interruption in the reign of King Henry



The Little Britain Gateway to St. Bartholomew's Hospital, London.

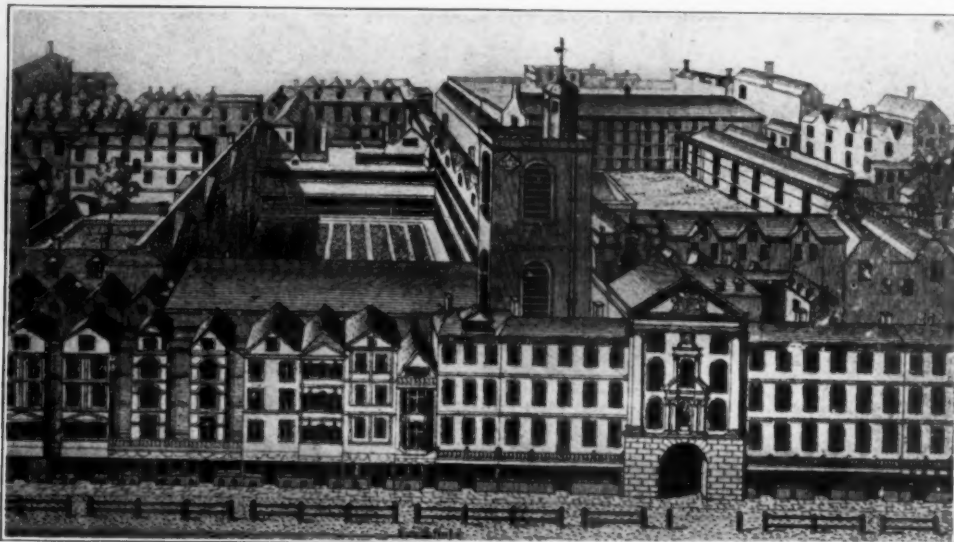
he vowed that should he be spared to return home
he would build a hospital in token of his grati-
tude. His prayer was heard and he was told by
St. Bartholomew, who appeared to him in a vision,

VIII, a devoted band of men and women have
carried on their work of mercy in Rahere's
hospital.

The story of the foundation takes us back to

the days of the Norman Conquest. Men were then living who remembered Hastings. For anything we know to the contrary, among the first patients may have been one who fought at the

John Bradshaw, John Philpot and other servants of God suffered death by fire for the faith of Christ in the years 1555, 1556 and 1557." The great fire of London raged round but spared the



Engraving of the hospital in 1720, showing the Gateway as it stands today. In this engraving can be seen the butchers' stalls on either side of the gateway. Soon after the engraving was made the hospital was rebuilt from the foundations, 1725 to 1760.

battle. However that may be, many maimed in war, in revolution, in riots and by fire, must in the length of years have blessed the good saint, for Smithfield has a somber history. Today the casual visitor will find some difficulty in conjuring up scenes from the past. None of the original building remains; that has long since disappeared. St. Bartholomew's hospital has no very striking façade. It does not proclaim itself to the world as does St. Thomas' on its unrivalled river site; the merits of St. Bartholomew's lie deeper than in mere external beauty.

The three large blocks that look on to Giltspur Street are substantial and modern. The Smithfield front with its picturesque gate is overwhelmed by the massive end of the new pathological block; the third site that fronts Little Britain street is unimposing and is gradually being modernized, while the fourth is obscured by high buildings across the post office yard. The huge meat market that fronts the hospital on the other side of the Smithfield Square does little to stimulate the imagination; the almost equally huge post office that flanks it on the other side is dull and uninteresting. Even the mighty dome of St. Paul's Cathedral, distant but a few hundred yards, is seen only in glimpses between the high buildings. Yet Smithfield is full of memories. Of the striking down of Wat Tyler, the shameful death of Wallace, and the burning of the martyrs at the stake every child has read. A memorial tablet on the walls of the hospital tells that "within a few feet of this spot, John Rogers,

hospital. The Gordon riots centered at the prison which was but a stone's throw away, and, as if Smithfield is ever to witness deeds of violence, one of the gates of the hospital is deeply dented



Font in the Church of St. Bartholomew the Great. The painter Hogarth was baptised in this font.

by bombs dropped during one of the air raids over London during the Great War. It is not difficult to picture the awe-struck patients eagerly asking those who waited upon them 'the latest details' of these happenings. Strange juxtaposition of mercy and fiendish cruelty!

Tomb of Founder in Sanctuary

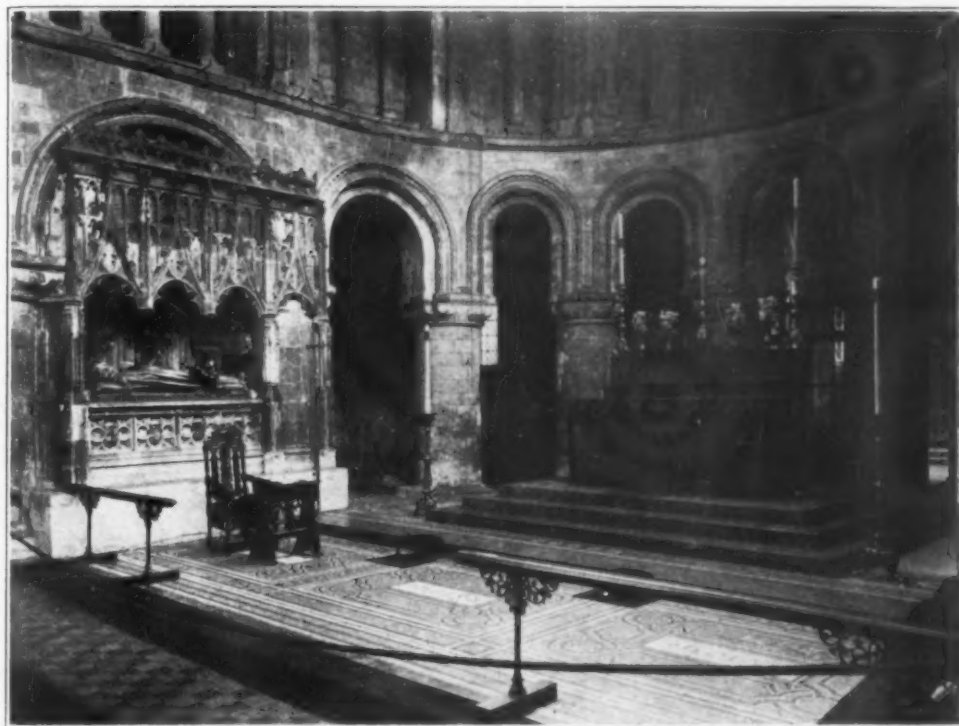
One old building, however, there is and it is well worth a visit by those who seek to gain some impression of the antiquity of St. Bartholomew's. Separated only by a narrow street from the eastern corner of the hospital stands the entrance gate to the remains of the monastic church of St. Bartholomew the Great, which Rahere built. His body lies buried beneath his effigy in a tomb standing in the sanctuary. Sadly mutilated by time and the destroying hand of man, as the church is, it is still possible as one stands in the choir between the massive Norman pillars looking towards the tomb of the founder, to see something as it appeared nearly 800 years ago.

For more than 400 years the hospital and the monastery were associated. At the Reformation in 1536 the hospital revenues passed into the possession of King Henry VIII, but a few years later



Choir of the Church of St. Bartholomew the Great, showing the tomb of the founder protected by sandbags against damage by air raid bombs during the Great War.

the habit of attending the medical and surgical practice of the hospital, and in 1667 a library for the use of the governors and young university scholars was formed. The medical school, therefore, officially dates from 1662, though no doubt students attended the hospital prior to that year. We give an order of date the various additions that have since been made.



Tomb of the Founder, Rahere

on the petition of Sir Richard Gresham, lord mayor of London, the king refounded the hospital and eventually restored a large portion of its endowments. From that day onwards there has been no cessation of the work.

It is recorded that in 1662 students were in

1726. Anatomical museum built.

1822. New anatomical theater built.

1835 to 1854. Anatomical museum enlarged; new medical and chemical theaters and museum of materia medica and botany built; library enlarged.

1865. New dissecting room built.

1866. New laboratories for the study of practical chemistry.
1870. Laboratory for the teaching of natural philosophy built. New eye wards built.
1876. The existing accommodation being insufficient for the students, the old buildings were placed on an enlarged area so as to more than double the accommodation.
1877. New anatomical theater fitted up and dissecting room enlarged.
1890. Laboratory for bacteriology built.
1891. New laboratories for public health and special pathology of preventable diseases, and for biology.
1899. Additions made to the appliances of the laboratories for physiology and physics.
1904. New laboratories for chemical pathology fitted up.
1905. New operation theaters built.
1907. New block costing £120,000 comprising new resident quarters, students' dining and common rooms, casualty and special departments, dispensary, casualty wards and clinical lecture theater.
1906. New lecture theater and laboratory for physics built.



John Woodall, surgeon to St. Bartholomew's in 1616. "If Woodall had done nothing else, he would deserve the lasting gratitude of every sailor, for he inferred the efficacy of lime juice from the happy accident of two ships' crews, one suffering with scurvy and the other free from it, differing in this one article of diet and nothing else."



Percivall Pott, surgeon to St. Bartholomew's, 1744-1787. Known throughout the surgical world on account of the careful description he gave of a fracture which he sustained in his own person.



Thomas Vicary, one of the most prominent men about St. Bartholomew's Hospital for many years after its second foundation. He seems to have acted as medical superintendent, though it is doubtful whether he ever practised as a surgeon.

mingled at St. Bartholomew's that it is difficult to carry away any very distinct impression of plan. The utilitarian architect would no doubt say that for modern hospital purposes it would have been better to make a clean sweep of the site and build afresh. The jealous guardianship of the governors has been mindful, however, of the past as well as of the present, and we may be sure that such portions, as the Church of St. Bartholomew the Less which stands just inside the Smithfield Gate (for the Hospital is still a parish), the staircase leading to the Great Hall, the walls of which are adorned with paintings by Hogarth, the Great Hall itself

with its gallery of portraits of those who have rendered distinguished service to the hospital will not disappear before the hand of the reformer. Even the wards which do not conform to the latest standards of hospital planning, may well be spared a longer lease of life.

In spite of this composite char-



William Harvey, the discoverer of the circulation of the blood. He is said to have been "a man of low stature, round-faced with a complexion like a wainscot."

1907. New chemical laboratories.
1909. Pathological block with large and extensive laboratories built.

Building, renovation and extension still continue and the hospital's history and that of the medical school is one of constant progress.

The old and the new are so inter-

acter, however, St. Bartholomew's today stands "first among equals." In equipment, in the treatment of disease, in the teaching of medicine, in the nursing of the sick none can take rank before it.

At the time of the refounding by King Henry VIII there were 100 beds.



John Abernethy, 1787. Surgeon to the Hospital for 28 years. One of the great reformers and teachers of the medical profession.

Today there are 686, as follows:

240 medical beds.
320 surgical beds.
16 maternity beds.
110 special beds.

686

In 1921 8,632 in-patients were treated. In the same year 67,913 out-patients were treated. The total income for 1921 amounted to £165,256, and the total expenditure was £184,145. The income of St. Bartholomew's for the year 1921 according to the statistical tables published by the King Edward's Hospital Fund for London, was made up of

Interest dividends, rents, etc.	£ 98,370
Voluntary gifts	37,047
Earnings	20,581
Extraordinary	9,258
	£165,256

For many years the amount of the endowments of the hospital made an appeal to the general public unnecessary. To-day, however, the total expenditure is nearly double the endowments and large sums have to be raised in supplement.

Of the many distinguished men who have been associated with the hospital, space forbids mention of more than five. By the courtesy of Sir D'Arcy Powers, K.B.E., M.B., F.R.C.S., we are able to give their portraits and the short legends that appear under them from an account of the hospital which we wrote and published in 1905.

It is sad that the historian of St. Bartholomew's — Sir Norman Moore Mt., M.D. — should not have been spared to take part in the anniversary celebrations. He died on November 30, 1922. His work is a worthy monument to himself and to the hospital, of the staff of which he was so distinguished a member.

From the *St. Bartholomew's Hospital Gazette* we learn the provisional program of the celebrations of the foundation.

ST. BARTHOLOMEW'S HOSPITAL 800th ANNIVERSARY CELEBRATIONS

PROVISIONAL PROGRAM

Tuesday, June 5, 1923

Service at the Priory Church of St. Bartholomew the Great.

Luncheon to the delegates by the governors and staff of the medical college of St. Bartholomew's Hospital.

Reception of addresses from the delegates by H. R. H. The Prince of Wales, president of the hospital.

Old students' dinner.

Wednesday, June 6, 1923

Reception at the Royal College of Surgeons of England, Lincoln's Inn Fields.

Bartholomew Fair to be held within the hospital precincts.

Banquet to the delegates.

Thursday, June 7, 1923

Service at St. Paul's Cathedral.

Continuation of Bartholomew Fair.

Conversazione in the hospital and medical college.

During the celebrations an exhibition of historical and scientific interest will be held within the hospital.

A meeting of the Rahere Masonic Lodge will be held during the celebrations.

That an institution with such a foundation and with such a record as St. Bartholomew's should ever be allowed to languish for lack of funds, or should ever pass into the hands of the state, except by some acts as violent and as soon regretted as that of the monarch whose effigy adorns the Smithfield Gate, is inconceivable. We trust that the celebration of the 800th anniversary of the foundation will mark a new era in the history of the mother of the great English voluntary hospitals; an era in which she renews her youth, and

continues with fresh heart and confidence her career of usefulness. In her welfare is wrapped up that of all her children. She has shown that age does not necessarily mean decrepitude, and she has amply justified the faith of her founder. So far as his Hospital is concerned, time has proved that he built upon a rock against which the

ORDERS AND ORDINANCES

FOR

The better government of the Hospital
of BARTHOLOMEW the less.

As Also

Orders enacted for Orphans and
their PORTIONS.
M D LXXX.

Together with

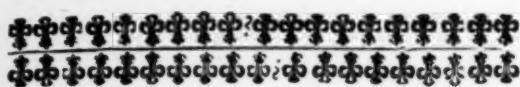
A Briefe DISCOURSE of the laudable
Customes of LONDON.



LONDON,

Printed by JAMES FLESHER,
Printer to that Honourable City, 1652.

The title page of an order book of St. Bartholomew's Hospital, printed in 1652. An original copy of the book forms a part of the collection of early hospital literature owned by Alfred C. Meyer, president of Michael Reese Hospital, Chicago.



T H E
Division of the Governours,
and Officers : the Names , and
Nature of them both.

IT behoveth first to understand for the more evidentnes of that that followeth, that there are in this administration, two sorts, or kindes of men. The one called Governours (by a name proper to their Authority) placed there by the Lord Mayor, as Patron of this Hospitall : And the other called Officers, that for wages are hired, for to have the necessary doings in the service of the house and the poor.

The Governours so change, that the one halfe remaineth two yeers in their governance, to help and instruct the later elected, which also become Instructors to their followers. And these are in number twelve, whereof four are Aldermen; and the residue Communi-ners, and according to their governance, thus are they named.

The President, alway the Seniour Alderman.

Surveyors four, two Aldermen, and two Communi-ners.

Almoifners four, one Alderman, and three Communi-ners.

The

The Order of the Hospitall.

The Treasurer a Communer.

Scrutiners, two, both Communi-ners.

The Officers are seven in number, continuable or removable, as the governours shall finde cause, and bee thus called.

{ The Hospiteler.

{ The Renter Clerk.

{ The Butler.

{ The Porter.

{ The Matron.

{ The Sisters, twelve.

{ The Byddles, eight.

These are also as in a kinde by themselves, three Chirurgians in the wages of the Hospitall, giving daily attendance upon the cures of the poor.

And a Minister named the visitour of *Newgate*, according to his office and charge.

The Governours are alwayes elected by the Lord Maior and his brethren, who yearly electeth six, that is to say, two Aldermen, and four Communi-ners, which are admitted into the Hospitall, after this manner.

The whole Company of the twelve old Governours, sitting in Assembly together, cause their Clerk to read unto the six newly elected, the charge hereafter following.

The Charge.

IT may please you to understand, that yee are here elected and chosen, as fellow governours of this Hospitall, to continue by the space of two yeers. By all which time according to such laudable degrees and ordinances

Two typical pages from the Orders and Ordinances of St. Bartholomew's Hospital.

waves of the State may exhaust themselves in vain.

MUST SAY PRAYER BEFORE DISCHARGE

Early patients at St. Bartholomew's Hospital, London, which celebrates in June its 800th anniversary, were required before discharge from the institution to say a prayer of thanksgiving to God. This prayer must be said "upon their knees in the Hall before the Hospitaler, and two Masters of the House at the least." The hospitaler further must see that the patients know the prayer "without the book." The following is the text of the prayer:

"We magnifie and praise thee O Lord, that so mercifully and favourably hast looked upon us miserable and wretched sinners, which so highly have offended thy divine Majesty, that wee are not worthy to bee numbred among thy elect and chosen people; our sins being great and grievous are daily before our eyes, we lament and be sorry for them, & with sorrowfull heart, and lamentable teares, we call and cry unto thee for mercy. Have mercy on us O Lord, have mercy upon us, and according to thy great mercy, wipe away the multitude of our sins, and grant us how O Lord, thy most holy and working spirit, that setting aside all vice and idleness we may in thy fear walk, and go forward in all vertue and godliness. And for that thou hast moved O Lord, the hearts of godly men, and the Governours of this house, to shew their exceeding charity towards us, in curing of our maladies and diseases, we yeeld most humble and hearty thanks to thy

Majesty, and shall incessantly laude and praise thy most holy and glorious name. Beseeching these, most gracious and mercifull Lord, according to thy holy word and promise, so to bless this thine own dwelling house, and the faithfull Ministers thereof, that there be here found no lack, but that their riches and substance may encrease, that thy holy name may thereby bee the more praised and glorified, to whom be all laud, honour, and glory, world without end. Amen."

\$100,000 FOR BETH ISRAEL HOSPITAL RAISED IN TEN MINUTES

Bernard K. Marcus, president of the Bank of United States, and a director of the Beth Israel Hospital, New York, was entertaining twenty friends at dinner the other evening in his home at 525 West End Avenue when a discussion arose about the hospital's new building, now being erected in Livingston Place, between Sixteenth and Seventeenth Streets.

When the host mentioned that the new hospital will have 300 rooms, the suggestion was made that each of the twenty men present subscribe \$5,000 for an individual room, in memory of the donor. In less than ten minutes \$100,000 had been subscribed for twenty rooms.

The Brooklyn Hospital on April 4 took over the work of St. Christopher's Hospital for Babies, transferring the babies to its own children's department. St. Christopher's was incorporated in 1897 and since that date has been caring for babies under three years of age.

ROCKEFELLER REPORT PICTURES IDEAL TRAINING SCHOOL FOR NURSES

BY MARY C. WHEELER, R.N., SUPERINTENDENT, ILLINOIS TRAINING SCHOOL FOR NURSES, COOK COUNTY HOSPITAL, CHICAGO.

THE interesting task of closely observing twenty-three selected schools of nursing in the United States, classifying their like conditions, weighing results and pointing toward an ideal, has been accomplished.

The investigations were made by the Rockefeller Foundation and its report will undoubtedly become the basis for introspection and measurement of nursing schools.

Part "A" of this report considers the function of the nurse: public health nursing; the nurse in private duty; the nurse in institutions.

Part "B" considers the training of the nurse.

Because the school of nursing is fundamental to an efficient nurse, regardless of her later function, the writer desires to bring out more clearly the picture of the standard as recommended.

"Our studies of the nurse in action," says the report, "have thrown into relief some of the strong and some of the weak features of that training; its prime asset in teaching the symptoms and care of disease, without which the teacher of health is fatally handicapped; its weakness in failing to give due weight to the prevention of disease broadly conceived, and in failing owing to a variety of causes to meet the greatly increased demand for applicants of high calibre." (p. 187).

To relieve undue anxiety and to instill hope for all who are interested in schools of nursing, it is stated, in urging changes, that the appeal is not to an impossibly ideal condition but to a condition already approximated in some hospitals and accomplished in others. (p. 453). The weakness and failures found too abundantly true of these schools as studied are obviously even more true of the inferior schools. (p. 191).

Schools comparing themselves with the proposed standard must know that the twenty-three schools selected for this fundamental study were chosen from schools connected with hospitals both

The ideal school of nursing as pictured in the book, "Nursing and Nursing Education in the United States," recently off the press, is presented by Miss Wheeler in the accompanying review. The volume, a work of 585 pages, includes the report of the Committee for the Study of Nursing Education (published in its preliminary form in the August, 1922 issue) and the report of a survey of twenty-three nursing schools conducted by Miss Josephine Goldmark, secretary of the committee. Miss Wheeler's review is not so much an interpretation as an abstract, and is for the most part couched in the report's own words. Page references are given to make the report accessible for intensive study.

publicly and privately supported, hospitals carrying from 50 to 2,700 beds, both general and special. (p. 190). The enrollment in these schools covered the records of 2,406 students. The study was made with the idea of advancing the genuine education of the woman as a nurse rather than furnishing a nursing service to the hospital. It is on the pattern of the better schools that the future must be modelled. (p. 191).

The school's activities depends on the financial and educational policy, or lack of policy, of the hospital (p. 188), the equipment and clinical facilities offered, in the type and number of patients, and the ratio of students to patients. It is influenced from within by the requirements of the student for entrance, the curriculum, the methods of training, the hours on duty, the living conditions, and the social relations.

The real motive of a student in wishing to graduate from a creditable school of nursing is to "relieve suffering and to save life" (p. 194) by developing "technical skill, observation, mental alertness, judgment and personality." (p. 212).

To develop this finer type of nurse the report discusses the following points in a most unbiased and liberal way.

Management and Endowment

The management and endowment of the school should be independent of the hospital in whose wards the students receive their clinical training; the school is educational. (p. 206). In such hospitals as continue the school as a part of the hospital organization, there should be appointed by the board of trustees a training school committee, ideally composed of both men and women, a representative of the board of trustees, medical staff, persons known to have had experience in education, member of the alumnae of the school, with the superintendent of the hospital and of the

training school as *ex officio* members. (pp. 206-208). "The hospital trustees in their turn are charged with many diverse duties towards patients, medical staff, nurses, the community. They are over-burdened with the business of running the hospital." (p. 205).

"The publicity sense which is so admirably exploited in behalf of other needs of the hospital might be effectively enlisted in behalf of the training school, if the board were in command of the facts, and if the public were aware of its stake in nursing education. For we face here a problem not only of education but of nursing service and consequently of the public safety or danger. The hospital which uses students for its sole nursing staff, without adequate teaching, supervision and suitable conditions of living, in effect jeopardizes the lives committed to its charge." (p. 210). "Thus the young nurse is called upon for observation, knowledge and judgment she has had no time to acquire. Whatever her errors, the responsibility for breaking faith with the public must be on the heads of the hospital authorities rather than on hers." (pp. 313-314).

The policies of the institution should be furthered by the superintendent of the hospital, the superintendent of the nursing service and assistants. The nursing staff should consist of a superintendent, (pp. 205-206, 279, 542-545) and educational director, (p. 290) instructors, (pp. 232-235, 256-297, 545-550) supervisors, (pp. 244-247, 309), headnurses, (pp. 227, 248, 309) a permanent graduate staff both for day and night duty, (pp. 359-360) and such other persons as are necessary to carry non-nursing duties, (pp. 212, 234, 235, 290, 326, 342-345, 347-355, 362-365).

Many Schools in Hospitals too Small

In comparing clinical facilities the report states that "no single norm can be dictated as obligatory to the various types of hospitals considered. Plainly, large hospitals with rich clinical facilities offer possibilities of training which cannot be duplicated in smaller institutions. About 40 per cent of the total number of schools of nursing (1,800) are maintained by hospitals too small to offer nurses' training. The adequacy of clinical facilities is of fundamental importance to the equipment of the nurse; they are the laboratory in which the student receives her practical training. If training in all major services is provided for, its value must still depend on the guarantee of variety and adequacy afforded by the number of beds they contain or the acuteness of the service." (p. 213).

The major services are listed as medical, surgical, obstetric, pediatric, with desirable additions

of communicable and mental and nervous. (pp. 215-219). "In connection with teaching and supervision in bedside care, it is important to point out the superior advantages of the wards over private service, the value of which in teaching has often been over-emphasized. In the private service, restricted experience of one or two cases is offered in place of the greater range and variety of opportunities provided by the open ward. (pp. 317-318).

The ratio of patient to student "must vary to some extent with the type of hospital, since the number of patients a student can properly care for depends upon the nature of their illnesses. Five patients are generally held to be the maximum number that a student in the great majority of cases can satisfactorily tend." (419). This estimate is for day duty. The estimate for night duty is 10 patients to one student. (p. 440).

Closely linked with the clinical facilities for the successful teaching of both theory and practice of nursing is the equipment. Standard furnishings and supplies throughout the hospital like that provided in the demonstration rooms are of essential importance for uniformity of technique. (p. 249) Special rooms for teaching such as a demonstration room, (pp. 235-237) diet kitchen (pp. 320-321) and properly equipped laboratories are other necessities. "Fatigue and overstrain must obviously and gravely affect the student nurse's efficiency." (p. 422) "The student suffering from the unavoidable fatigue of the longer day is less swift and deft in her movements, less alert, less energetic in her attack on work than the student working on the shorter schedule. It is a question also of the public safety. The well-known relation of fatigue to accidents and spoiled work in industry has rarely been invoked in respect to nursing service. Yet the analogy is in fact a close one." (p. 423) "It might as well be frankly admitted that, with the longer schedules of hours still generally in vogue, it is impossible for the school to redeem its educational promise; excessive hours of service leave neither time nor energy for sound educational work." (pp. 406-408, 424)

Recommends Eight-Hour Day

A comparison of hours on duty shows a range from 51 to 60; an average of 54 hours weekly (p. 410). "In the three-fold interest of health, of efficiency in practical work, and of education and study, it is recommended that hours of duty for the student nurses should not exceed eight in one day or 48, preferably 44, in a week." (pp. 424-426) Class work should be included in duty hours and ultimately study also. (p. 458)

"The total time devoted to night duty should not be disproportionately long to the entire course of training; it should be no longer than is strictly necessary to assure the special educational values aimed at." (p. 427) It is recommended that students undergoing long periods of night duty should be assured of the relief of a weekly holiday; sleeping quarters arranged for quiet and privacy and that students should not be awakened to attend class until after adequate rest; not assigned until after having been in training a reasonable length of time; given adequate supervision; be placed in charge of a manageable number of patients. (pp. 427-428) The study of "the assignments of night duty show no evidence of effort on the part of the training school authorities to make the student's experience fruitful in compensation for its essential physical cost." (p. 431) "Two months would indeed seem a sufficient total length of time for night duty experience." (p. 432) These two assignments are recommended for one month medical and one month obstetrical. Assignments should not exceed one month and sufficient time allowed between assignments to regain physical loss. (pp. 426-441, 459)

Full-Day Instead of Half-Day Rest

Time off duty should be changed from two half-days to one full day's rest in seven with adequate previous notification of the same (pp. 413-414). The question of overtime in the operating and maternity services is solved by "so staffing the operating and obstetrical departments with graduates and paid assistants that students are not alone responsible for the running of the department." (p. 418)

Two vacations are recommended in periods of not less than one month with adequate notification. (pp. 420-421)

Necessary to a good quality of physical and mental health are normal living conditions. (pp. 442-452) The living quarters should be detached from the hospital buildings, with single rooms, meals served in the nurses' residence rather than in the hospital, adequate provision for convenience and comfort. Libraries, study rooms and hall for various gatherings and amusement, under a social director and under the rulings of student government should be provided.

As regards entrance education, the completion of four years' high school is upheld. Statistics show the fact that 78.2 per cent of the 2,082 students reported from the 23 schools, had had four years high school or its equivalent. (pp. 212, 219-221) As a result of surveys regarding age admittance, in the space of seven years the age re-

quirement for entrance has been lowered two years. To recruit students, it is therefore important that, with completion of high school required for entrance, the age of admission to training coincide with the age of graduation. (p. 221)

Physical examination of candidates is required in the better schools. It would be highly desirable in the interest of the stable student body to supplement this by some method of determining the grade and type of the intelligence and character of applicants. (p. 458)

Allowances Count Little

How little the giving of allowances counts in the group of schools studied as an inducement to candidates and how little the charging of tuition acts as a deterrent is shown by the relatively large enrollment of students in the schools charging tuition and making no allowances. The better education and living advantages appear to outweigh the comparatively small money inducement in attracting candidates of good calibre. (p. 222)

In many schools the turnover of probationers is high, rising to 50 per cent of the entering class. Withdrawals are listed as due to temperamental or physical unfitness, ill-considered training and unnecessary hardships of the preliminary term and to the present low standards of entrance requirements which admit to many schools candidates obviously incapable of training. (p. 230) "It is evident from this brief summary that many of the schools, even in our picked group, are unfitted, as at present conducted, to offer a three-year nursing course. (p. 218) "In our opinion the reduction of the present three-year course is of the first importance both in order to aid in meeting the increased demands for nursing service of all kinds in all parts of the country, and to aid in recruiting students who may well hesitate to devote three years to a training to which they may be willing and able to give a shorter period of time. (p. 459)

This reduction can be effected by the following means:

By the elimination of services of least value for student training, such as private duty.

By the radical reduction of other services in which students now spend time totally disproportionate to the educational value of the service, such as the surgical wards, the surgical supply room, the diet kitchen.

By the saving of time now educationally barren in the first year for lack of theoretical instruction later given to explain the nursing and treatment of the diseases encountered; and finally

By the saving of training educationally barren in the third year through the monotonous repetition of duties.

Against this reduction of time we must, however, allow for the various necessary improvements in training already noted. (p. 460) In many schools

in ungraded repetition of duties it is estimated that more than one-fifth of the student's time is absorbed in duties unrelated to her training.

Outline of Preliminary Training

The first four months of training should be devoted to intensive study for the most part in classroom and laboratory. There should be no regular ward duty. Students should be taken to the wards for concrete application and illustration of their studies, and to enable them to orient themselves in a new and complex environment. (p. 461)

Division of services following preliminary term are suggested as follows:

1. Medical6 months
Including:
General
Skin
Venereal
Communicable
Tuberculosis
Diet kitchen
Mixed service stated by school to be medical (p. 199)
 2. Mental and nervous2 months
 3. Surgical6 months
Including:
General
Gynecological
Orthopedics
Operating room
Recovery
Urological clinic
Eye, ear, nose and throat
Surgical supplies
Mixed services stated by school to be surgical (p. 199)
 4. Obstetrical3 months
 5. Pediatrics2 months
 6. Dispensary3 months
Including:
Medical clinics
Surgical clinics
Childrens' clinics
 7. Vacation2 months
- Total24 months

"But the most carefully planned transition from classroom instruction to ward practice must be carefully checked to insure a standardized technique. Chief among the means of insuring such standardizing is supervision as detailed and exacting as that in the classroom. (p. 244)

Nursing practice cards are a valuable means of making certain that each student has had practice in all procedures and that her technique is up to the school standard. (pp. 248-249, 314-316)

Students entering nurses' training represent very different degrees of education. It is a mere matter of justice that some adjustment shall be made. Credit is less commonly granted for previous training than for ground covered in college classroom or laboratory. This is due to the un-

standardized condition of technique in the training school and the natural feeling that a school can guarantee only its own teaching methods. (p. 224-226)

Graph 1 (p. 198) shows many discrepancies between the time planned for each service and the actual time spent in the same. It becomes apparent that responsibility for the present status of teaching rests on no single individual but in a complex and baffling situation. The superintendent of nurses is at once head of the hospital nursing staff and principal of the school. Her responsibilities are dual: to provide nursing care to patients and to provide the education promised to the students by the school in its printed program. (pp. 201-202)

A carefully graded course is more or less closely followed at many hospitals and the assignment of patients is planned so as to afford the student a genuinely educational gradation of clinical experience. (pp. 297-307) In order that the nurse may appreciate the medical treatment and participate in it intelligently it would appear that she should be acquainted with the patients' records, medical and social, from diagnosis to end result. (p. 316)

Following the review of the students practical training and its problems the theoretical instruction is considered which is to interpret for her the cases and conditions which she encounters. (p. 367)

From adequate science teaching, aside from acquiring specific information, the student nurse, like other students, acquires certain general benefits which may be briefly summarized: training in accuracy of observation and of statement; training in manual dexterity through the exact use of material and apparatus; training in patience of observation and judgment in drawing conclusions. Of all these benefits, it must be clear, the manual skill, patience, and judgment are qualities primarily demanded by the issues of life and death and by the complexity of human relations among which the nurse is soon to play her part. (p. 251)

The proposed preliminary schedule in the fifteen weeks, (p. 462) is as follows:

Subjects	Total Hours	Hours per Week	
		Lecture	Laboratory
Chemistry	60	2	2
Anatomy and Physiology.....	90	2	4
Bacteriology	45	1	2
Elementary Nursing (including Bandaging and Hospital Housekeeping).....	90	2	4
Personal Hygiene	15	1	—
Dietetics and Cookery.....	60	2	2
Introduction to Social Aspects of Disease	15	1	—
Drugs and Solutions.....	15	—	1
	390	11	15

Instruction during Ward Training

The proposal for theoretical instruction during ward training (p. 469) is given as follows:

	Hours
Nursing in medical diseases.....	45
Elementary pathology.....	15
Materia medica.....	30
Diet in diseases.....	15
Massage	15
Nursing in surgical diseases, including:	
Gynecology	}..... 45
Operating room technique	
Orthopedic training	
Nursing in special diseases:	
Eye, ear, nose and throat	}..... 15
Skin	
Obstetrical nursing.....	30
Nursing in diseases of infants and children.....	30
Nursing in communicable diseases, including:	
Venereal	}..... 45
Tuberculosis	
Nursing in mental and nervous diseases.....	45
Applied medicine and public health.....	30
Social aspects of disease (supplementing preliminary course)	15
History of nursing, including:	
Ethics	}..... 45
Professional problems	

Total hours 450

The theory should correlate with the ward assignments and be a part of the 44 hour per week duty. The methods used are as follows: lectures, dictation, outlines, notebooks, recitations, quizzes, clinics, demonstrations, laboratories, autopsies, medical museum, x-ray.

The equipment needed: laboratories, bones, models, microscopes, fresh materials, preserved specimens, atlases, charts, text and reference books. The instruction should be given by especially prepared nurse instructors, physician-instructor and carefully selected specialists.

"Few reliable statistics are available on the morbidity of student nurses as shown by their days of absence from duty. It is well established that absence is most common during the first year." (pp. 227, 397)

Valuable Results of Centralized Teaching

In order to standardize the training in private and special schools an extensive system of affiliation is needed before such schools can offer adequate training. (pp. 216, 218-219, 457)

As an attempt to meet the scarcity of teachers arrangements have been made with the "visiting teacher," (p. 291) the Y. W. C. A. colleges (pp. 294-95), medical schools and universities to help in the problem.

Centralized teaching has also been attempted with many valuable results. Those at Toronto and Philadelphia are reported. This system of centralized teaching is in effect transitional to the plan already in practice in a number of university centers by which the training school becomes an integral part of the university. (p. 297)

Any changes at all, however small in the beginning, mean an increase in cost. But it is an increase of cost which is not new or avoidable; indeed this increase has already begun. (p. 454)

"It is evident that the dilemma of the training school is at bottom a financial one. Its failure—the worst failure of which an educational institution can be guilty—is the failure to teach. Now the cause of this failure is primarily the lack of money, without which the school cannot provide teachers, nor teaching equipment, nor even a place to teach; without which it is impossible to supply the supplementary nursing service to staff the wards while the students are given the classroom instruction that is to accompany, interpret, and illuminate their practical ward training. In a word, without sufficient funds, the wisest educational program must be frustrated." (p. 209)

A list of reasons why some schools of nursing fail and of factors contributing to the failure, as given in the report, is given below:

Why Do Schools of Nursing Fail?

None of them have all, but all of them have some.

- Tradition. (p. 192)
- Continuance of the apprenticeship system. (pp. 193-194)
- Needs of sick predominate; the needs of education must yield thereto. (pp. 195-196)
- Lack of paid group of graduate nurses and others to meet the hospital need, relieving the student body of non-nursing duties. (pp. 200, 359-365, 454-455)
- Irregular assignments. (pp. 203, 318, 326, 302)
- Failure to extend the education promised in catalogue, (pp. 202, 205)
- Failure of superintendent to show the board the impossible nature of task. (p. 202)
- No training school committee. (pp. 206, 308-309)
- School remains as a department of the hospital. (p. 207)
- Very great financial need. (pp. 209, 210, 293, 366)
- Lack of cost accounting. (p. 211)
- Failure to prepare a subsidiary nursing service. (pp. 212, 213)
- Many schools accept low educational entrance standards. (pp. 212, 457)
- Failure to include all services, such as communicable and mental and nervous. (pp. 212, 213)
- Understaffing of wards. (pp. 215, 244, 247, 310, 418)
- Lack of adequate supervision. (pp. 215, 244, 312)
- Careless technique. (pp. 215, 244, 307, 314)
- Lack of sufficient and proper affiliations. (p. 216)
- Failure to use case records. (p. 340)
- Understandardized condition of technique. (p. 226)
- Head nurse has no time for teaching. (p. 227)
- Need of appointment of full-time instructors. (p. 233)
- Poor planning, in that instruction does not precede technique. (p. 243)
- Theory and practice often taught by different women, differently trained, without conferences. (pp. 243, 247)
- Lack of well qualified teachers. (257, 293, 346)
- Neglect of suitable laboratory instruction; (270) equipment. (pp. 258, 271, 287)
- Insufficient allowance of time for study. (pp. 257, 277)
- Overcrowded character of courses. (pp. 277-279)

per Week
Laboratory

2
4
2

4

2

1

15

- Waste of student's time. (pp. 282, 289, 299, 342-343, 347, 348-354)
- Duplication of effort. (pp. 282, 329, 304, 355)
- Lack of endowments. (p. 290)
- Lack of graded training. (p. 298)
- Use of student as headnurse. (p. 301)
- Lack of conferences. (p. 309)
- Lack of adequate records. (p. 315, 342)
- Lack of correlation between practice and theory. (pp. 322, 375, 396-397)
- Failure to use dispensary and clinics as teaching field. (pp. 330-331, 334-341)
- Lack of educational planning. (pp. 336, 356)
- Too much stress placed upon curative medicine to the detriment of preventive medicine. (p. 369)
- Psychology, public health and social service not included in curriculum. (pp. 376, 382)
- Excessive length of hours on duty. (pp. 407-408, 415, 437)
- Classwork in evening hours. (p. 411)
- Failure to provide one day's rest in seven and to notify student of days off. (p. 413)
- Assignments of night duty service disproportionately long. Too close together. (427, 435)
- Class hours interrupt sleep, when on night duty. (p. 439)
- Living conditions second consideration. (p. 442)
- Retaining the three-year course. (460)

LAY CORNERSTONE OF JEWISH HOSPITAL WING IN BROOKLYN

More than a thousand persons participated March 25 in the laying of the cornerstone of the new \$500,000 wing of the Jewish Hospital in Brooklyn, known as the Abraham Abraham Memorial. The construction of the new wing was made possible by the initial gifts of the widow of Abraham Abraham, a merchant and philanthropist, who was the first president of the institution.

During the ceremonies the officials of the Jewish Hospital announced the completion of plans for the construction of another wing to the building and the donation of \$75,000 needed for the work. Hardly had the cheers which greeted this news died out when it was announced that the hospital had taken title to sixteen lots adjoining the site of the new memorial. The acquisition of this property makes the hospital the owner of the entire block bounded by Classon Avenue, Prospect Place, the Brighton Beach Railroad and St. Mark's Avenue.

Following this news, Nathan S. Jonas, president of the Manufacturers' Trust Company and the founder of the Jewish Hospital, told those present that he and his wife would convert the barren lots into a playground and recreation park for the convalescent patients and the nurses. It was announced that Dr. William Linder had contributed \$10,000 to convert six rooms in the old hospital building into operating rooms and that Dr. Joshua Ronsheim, at his own expense, would equip a maternity room for the institution.

Rabbi Alexander H. Lyons of the Eighth Avenue Temple delivered the invocation at the opening of the ceremonies. Supreme Court Justice Edward Lazansky presided and introduced Joseph J. Baker, president of the hospital. Mr. Baker in turn introduced Mrs. Percy Straus, daughter of Abraham Abraham, who laid the cornerstone. Mrs. Straus used a silver trowel. Inside the stone was placed a box with newspapers, coins and records relating to the hospital.

After the stone had been laid the ceremonies were

transferred to the auditorium of the nurses' home and training school attached to the hospital. Addresses were made by Justice Lazansky, Mrs. Straus, Mr. Baker, Dr. Leon Louria, Mr. Blum and Albert L. Levi, who was president of the organization founded in 1902 for the purpose of getting funds for the hospital.

When completed, the hospital, which is non-sectarian, will have 400 beds.

FIVE STATES UNITE IN CONVENTION

Five states are to be represented this month at a hospital convention in Minneapolis. To the Tri-State Hospital Association, whose second annual meeting is scheduled for May 17-19 at Curtis Hotel, Minneapolis, has been added the states of North and South Dakota. The original Tri-State association was made up of hospital workers in Minnesota, Wisconsin and Iowa.

The following program has been arranged for the Five-State convention:

Thursday Morning, May 17

- Invocation, Rev. Dr. Phillips E. Osgood, Minneapolis.
- Address of Welcome, Mayor Leach, Minneapolis.
- Paper, "Special Problems of Hospital Administration," A. O. Fonkalsrud, Trinity Hospital, Minot, N. D.

Thursday Afternoon

- Paper, "The Patient—How to Provide for his Comfort While in the Hospital," Miss Elizabeth Meyer, superintendent of nurses, St. Luke's Hospital, St. Paul.
- Paper, "The Hospital Laboratory," Dr. Kano Ikeda, pathologist, Minneapolis General Hospital.
- Paper, "The Hospital and the Health Department" Dr. F. E. Harrington, health commissioner, Minneapolis.

Thursday Evening

Various state meetings.

Friday Morning, May 18

- Paper, "Recent Reports of Nursing Education," Miss Adda Eldredge.
- Paper, "Nursing Education," Dr. Richard Olding Beard, University of Minnesota.
- Paper, "The Nursing Situation in Minnesota," Miss Irene English.

Friday Afternoon

- Paper, "How to Conduct a Staff Meeting and the Utilization of Hospital Records," Dr. Charles R. Drake, chief of staff, Swedish Hospital, Minneapolis.
- Paper, "The Hospital Intern," Dr. H. B. Sweetser, president, St. Mary's Hospital staff, Minneapolis. Discussion by Dr. E. P. Lyon and Dr. J. C. Litzenberg.
- Round table, conducted by Dr. A. B. Ancker, City and County Hospital, St. Paul.

Friday Evening

- Address, "The Hospital and the People," Hon. L. C. Hodgson, board of control, St. Paul.
- Address, "The Hospital as an Educational Factor," Dr. Arthur Sweeney, Ramsey County Medical Association.

Saturday, May 19

Visits to hospitals, institutions and business houses.

James A. Tobey, Washington representative of the National Health Council for the last two years, has been appointed administrative secretary of the Council with headquarters at New York City. He will succeed Walter Clarke, who has resigned to study medicine during the next five years in Europe.

THE NEW BOSTON LYING-IN HOSPITAL

BY COOLIDGE & SHATTUCK, ARCHITECTS, AND JOSEPH B. HOWLAND, M. D., CONSULTANT, BOSTON, MASS.

AFTER ninety years of service, the last fifty of which were at the quarters just vacated, 24 McLean Street, the Boston Lying-In Hospital is established in its new buildings on Longwood Avenue.

In moving to its new site the hospital becomes one of a notable group of institutions engaged in some phase of medical work. These institutions, now eleven in number, surround the stately group of marble buildings of the Harvard medical school. Power house service is furnished from the service station owned by Harvard University to the entire group, with one exception.

Two buildings have been completed, the hospital and a residence for women employes and nurses. In the future a private ward is to be built, the three forming a U-shaped group.

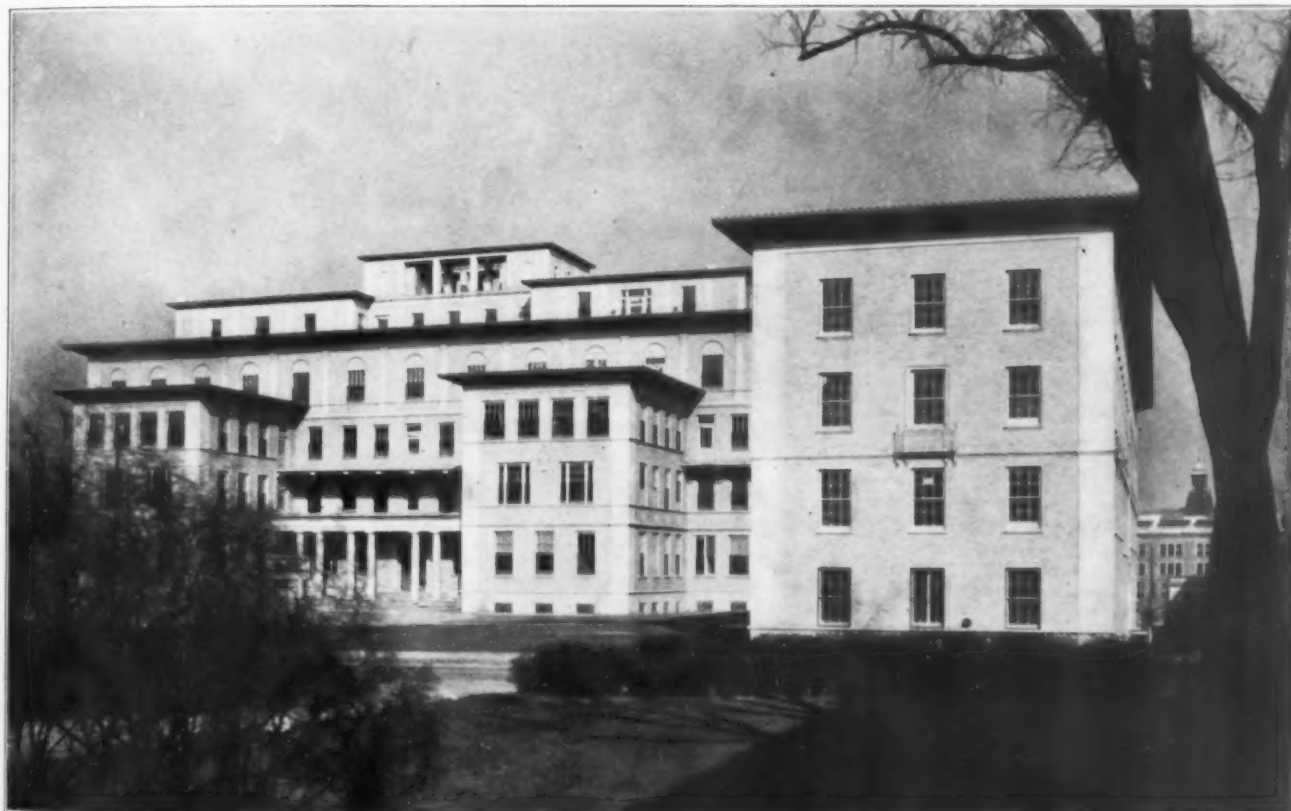
Designed After Florentine Palaces

In designing the hospital building, it seemed desirable to give the exterior a somewhat light and delicate treatment as a slight indication for the purpose of the interior. This suggested at once the Florentine palaces of Italy with their open loggias, soft colorings and refined detail.

For economy and durability, only the usual building materials of brick and stone trim were used, relying on the different possible textures and colorings to avoid a monotonous effect. To this end three or four different shades of a buff mottled brick were combined, with the trim of concrete stone made to imitate a honed surface limestone. For fireproofing reasons the cornice was made of copper and concrete, formed and colored as were the decorative wooden cornices of the before mentioned palaces.

The completion of the private ward on the west will make a broad court opening toward the south. The court enclosed on the street side by planting and a simple iron fence will do much toward forming this U-shaped group of buildings into one large unit. The accompanying photographs show clearly the uses to which the various floors are put so that no attempt will be made to describe them in detail.

The construction of the hospital building is fire-proof, the floors of concrete and the partitions of terra cotta. Everywhere hard plaster is carried up on the walls to the height of six feet. A four-inch terrazzo sanitary base of black cement and



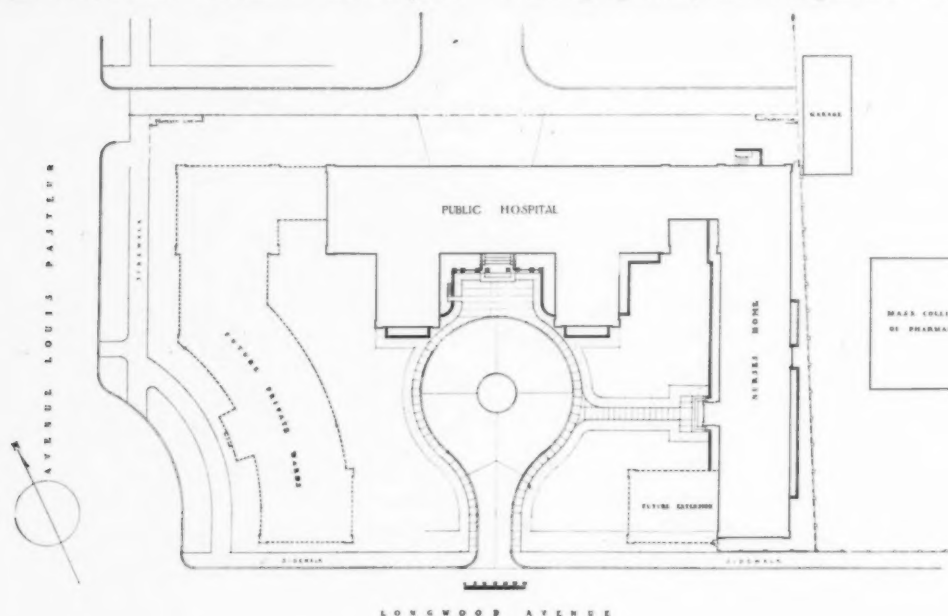
The new Boston Lying-In Hospital is in the style of the old Florentine palaces and is made of three or four different shades of buff mottled brick.

black Belgian marble laid at an angle of 45 degrees is carried through all corridors and rooms of the hospital building. The first floor corridor and trustees' room have black and white tile-effect rubber flooring. The same material in gray is used in all operating and delivery rooms. Rubber tile is also used in toilets and bath rooms. The rest of the corridors and the wards have a floor covering of battleship linoleum either brown or green in color. The kitchen, diet kitchens and utility room floors are of red quarry tile.

In general all rooms and wards in the hospital

heated by direct radiators and pipe coils and are operated on what is known as a "modulation" system, having graduated supply valves placed on radiators and coils, allowing a part or all of the heating surface to be utilized as occasion demands. The return connections from radiators and drip connections from mains and risers are provided with thermostatic valves, discharging condensation to a vented pump and receiver, which in turn discharges condensation to source of supply.

The hospital building, in addition to the general heating system, has a separate "summer" service



Plot plan of Boston Lying-in Hospital.

building having a southerly exposure are painted a light gray. Rooms on the north side of the building are painted a light buff. Bath rooms and utility rooms are finished in cream enamel. The operating rooms are of white enamel with a gray dado six feet high.

The nurses' home is painted throughout in a light gray.

Mechanical Equipment Most Modern

Since no boiler plant is provided in the buildings, the group derives the necessary steam for the several heating systems and for the various utilities from an outside source. A high pressure service main and a general pump return main are carried in a pipe tunnel to the main hospital building, with branch tunnels to the nurses' home and for the future private ward building. The steam pressure is reduced in each building for direct heating and domestic hot water service systems and for a medium pressure system for all utilities, such as sterilizers, stills, laundry apparatus, kitchen apparatus, etc.

The hospital building and nurses' home are

supplying radiators in nursery, premature nursery wash rooms and operating rooms, thus enabling these particular rooms to be heated during early spring and fall or damp days in summer. The hot water heaters are also connected to this "summer" service. Automatic temperature regulation for maintaining different temperatures in accordance with purpose to which rooms are employed has been provided for practically all rooms.

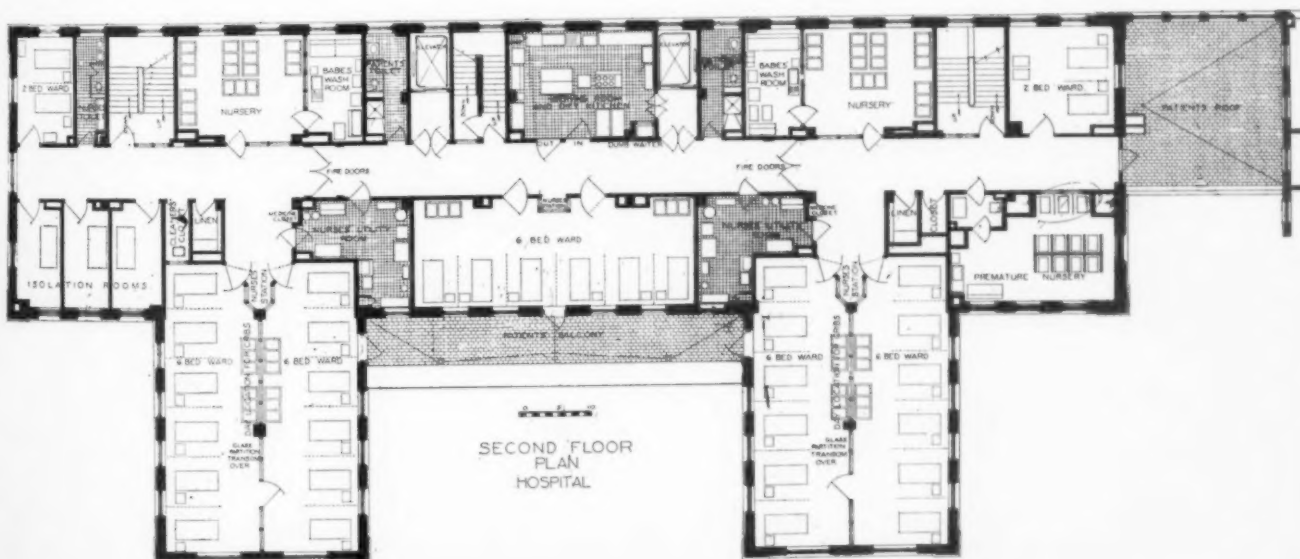
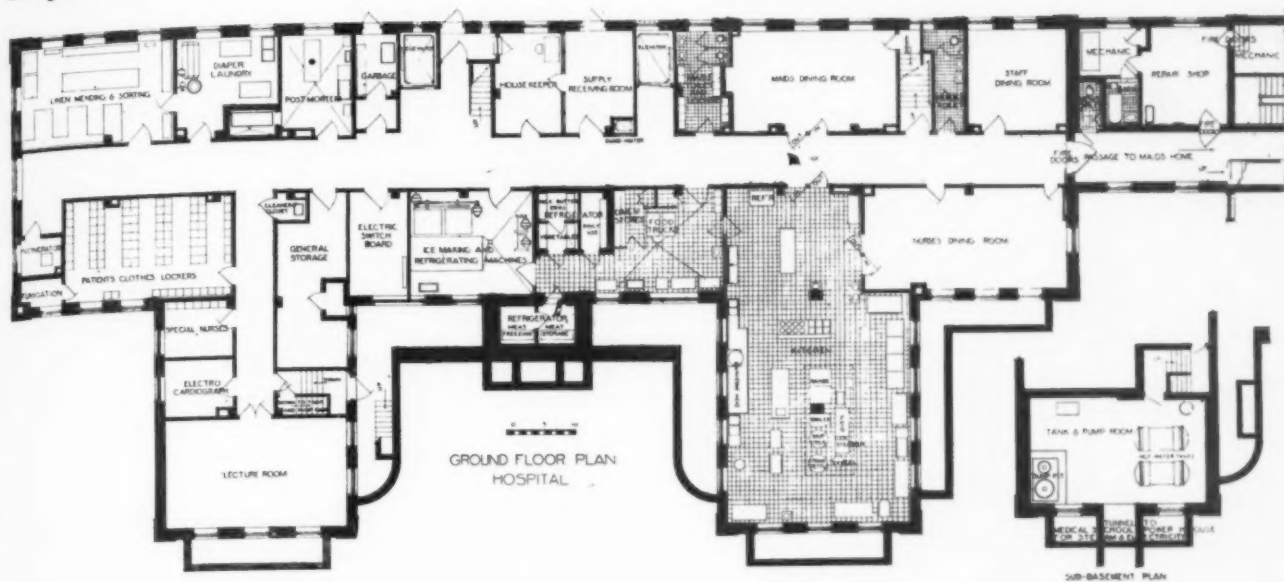
All rooms, except general offices and a few service rooms, where ventilation is not required, are provided with exhaust ventilation. Separate vent flues from these rooms are extended to a vent space above fourth floor ceiling and then connected to horizontal ducts leading to vent fans located in two fan houses on the fifth floor. The vitiated air is then discharged by these fans to outside air.

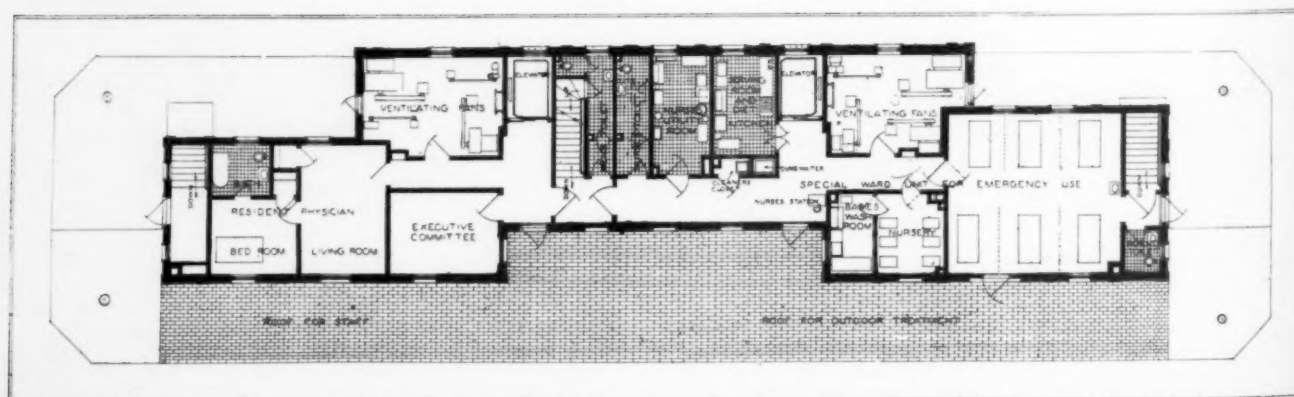
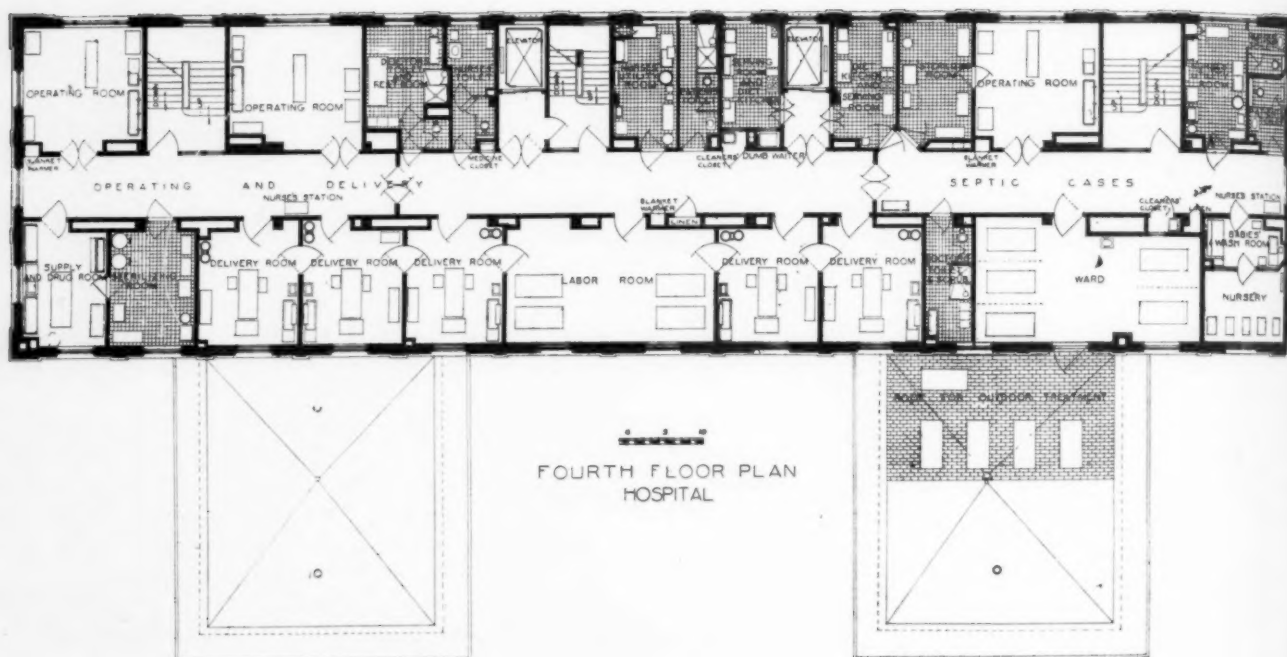
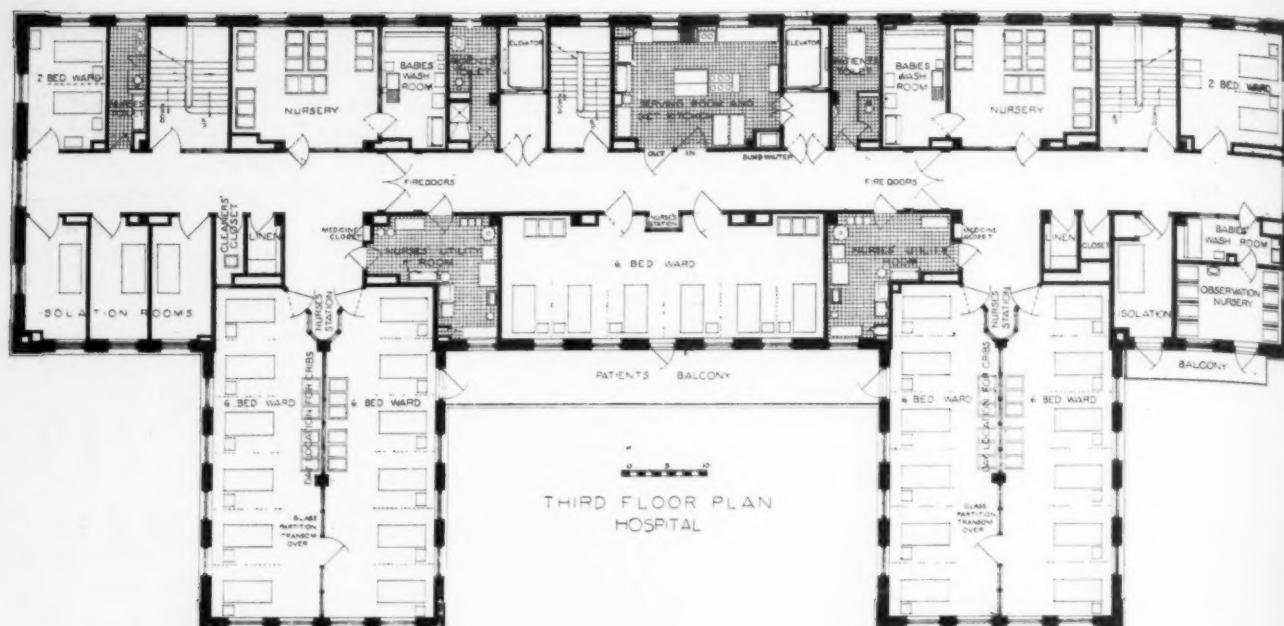
Vent flues in each room are arranged with two openings, one placed near ceiling and one near the floor. The top opening is fitted with a full register operated by a cord and pull attachment. The bottom openings are fastened to a steel welded frame, set flush with the plaster, permitting ac-

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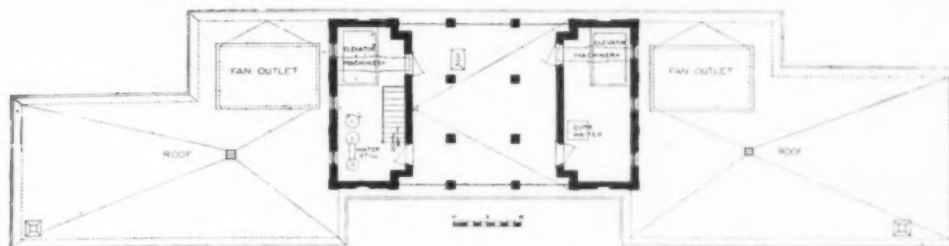


Fifth floor plan, Boston Lying-in Hospital.

cessibility for cleaning. The vent flues and horizontal vent ducts for all labor and delivery rooms are insulated, preventing transmission of sounds between these rooms and others.

The ventilation is divided into seven divisions,

ber and the top opening in chamber and warm air riser are fitted with automatically operated dampers. Within the chamber there are installed heavy copper wire baskets, fitted with copper drip pans at the bottom and arranged on slides to be



Pent House Plan, Boston Lying-in Hospital.

each division having a separate vent duct system and fan equipment. The divisions are as follows: mortuary room; general rooms; incinerator and sulphur sterilizing room; water closet and utility room; premature nursery; main kitchen, diet kitchen and dining room; sterilizing room.

All vent fan apparatus is electrically operated and equipped with self-starter and speed regulators; it is so arranged that it may be started by simply pressing a button in the general office or in fan houses on the fifth floor. Pilot lights in the general office indicate which fans are in operation.

An interesting feature is the treatment accorded to the premature nursery, located on the second floor of the hospital building. Owing to the large percentage of mortality among premature infants, it was considered desirable to regulate the temperature and percentage of humidity contained in the air admitted to this nursery and, in an effort to obtain these results, the following apparatus was installed.

Conditioning Air of Premature Nursery

Fresh air is taken from the outside and warmed by passing over tiers of indirect radiators located in a chamber on the floor below, and is carried through sheet metal ducts and risers to the nursery. A humidifier, consisting of a copper box equipped with a steam coil submerged in water and an automatically operated louvre cover, is located in the horizontal duct, below the risers.

In the nursery are two chambers built around fresh warm air risers, these risers forming the

rear wall of chambers and extending up and over the top, terminating in outlet registers. An opening was left in the warm air risers at the top and bottom of each cham-

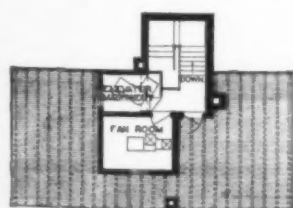
easily removable. These baskets are designed to contain lump calcium for absorbing moisture contained in air. Direct radiators, automatically controlled, are placed under each window to offset temperature loss through walls and windows and maintain room temperatures, as desired.

Vent flues are located in the nursery, fitted with top and bottom registers, so arranged by means of a rod attachment that when the top register is opened the same operation closes the bottom register, or vice versa. These vent flues are extended to a separate fan apparatus in the fan house and can be started or stopped from the nursery.

A "positive-acting insertion thermostat" is placed in one of the warm air risers controlling the steam valve to the indirect heater and cold air mixing damper. A "calibrated" wet bulb thermostat, located in the nursery, controls the steam valve to the coil and louvre cover of the box humidifier and also the dampers in the warm air risers and in the top of calcium or dehumidifier chambers. In addition to the above, there are placed on the walls of the nursery, thermostats controlling supply valves to direct radiators placed under windows.

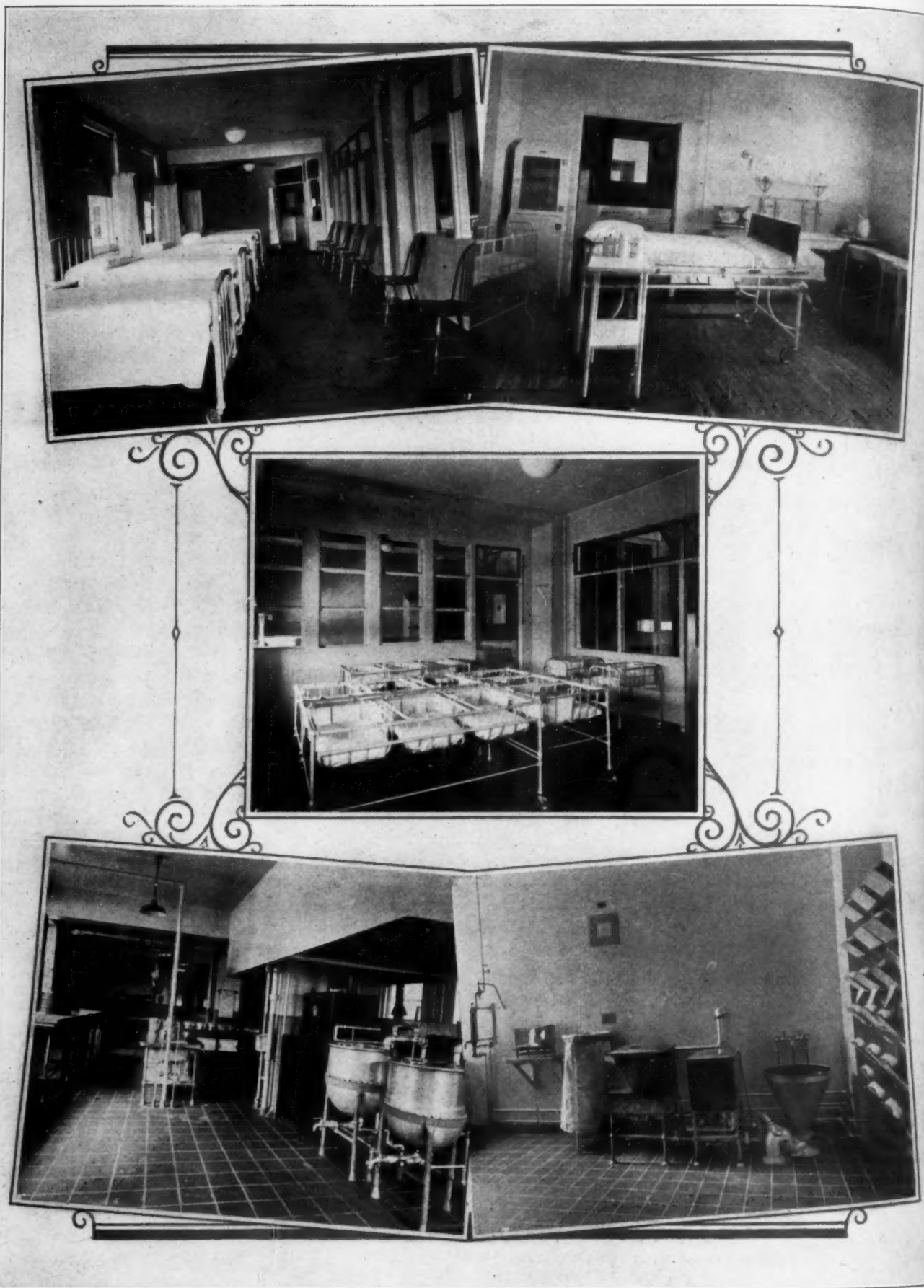
A resumé of the operation of this system would be briefly as follows: When the temperature of air in the nursery rises above the temperature degree desired, the "positive-acting insertion thermostat" operates, closing the steam supply to the indirect heater and in the same operation opens the mixing damper, allowing cooler air to mix with ascending warm air. When the reverse action occurs, that is when temperature falls below degree desired, the thermostat opens the steam supply to the heater and closes mixing damper. In conjunction with the control of fresh warm air supply, the room thermostats operate the supply valves on direct radiators.

When the humidity of air in the nursery rises above the percentage desired, the "calibrated" wet



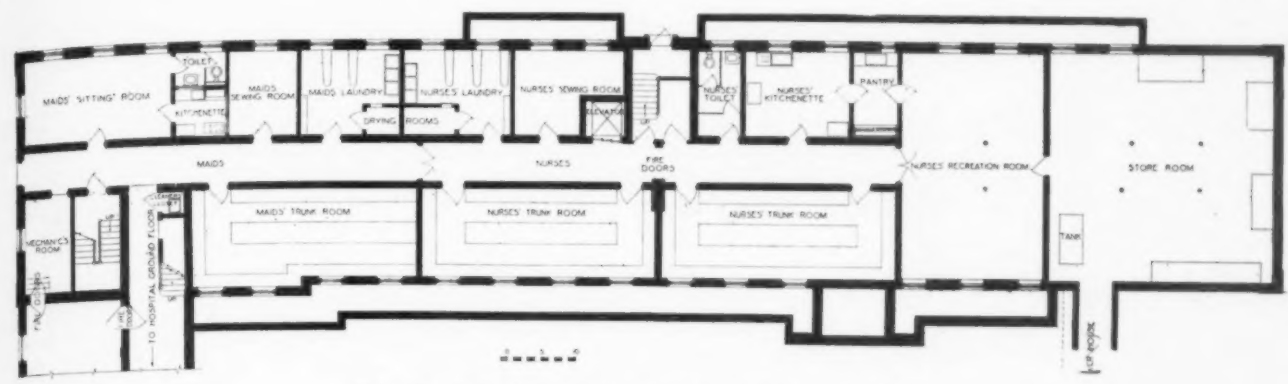
Plan of roof.

GLIMPSES INTO THE INTERIOR OF A MODERN MATERNITY HOSPITAL

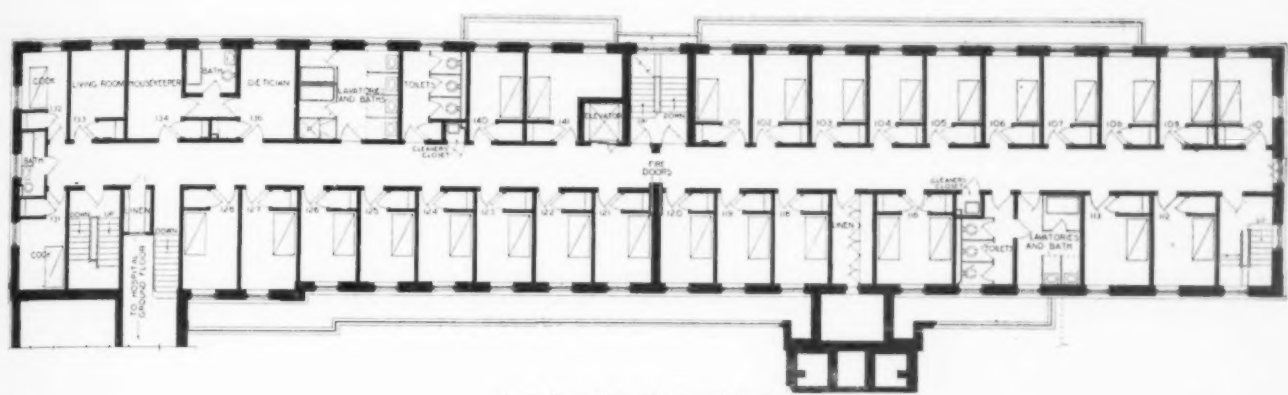


bulb thermostat operates, closing the louvre cover and steam valve to the coil in the box humidifiers and in the same operation closes automatic dampers in the warm air risers and opens the automatic dampers at top of dehumidifier chambers, permitting air to pass through and over wire bas-

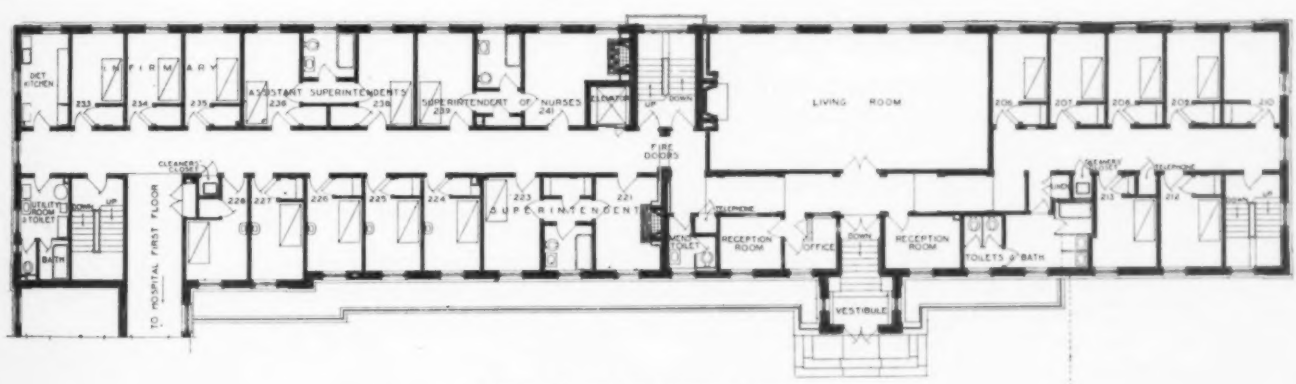
kets of lump calcium, absorbing in passage the moisture contained in the air before distribution in the nursery. When the humidity falls below the percentage desired, the "calibrated" thermostat again operates, closing the dampers at the top of the chambers and opens dampers in warm



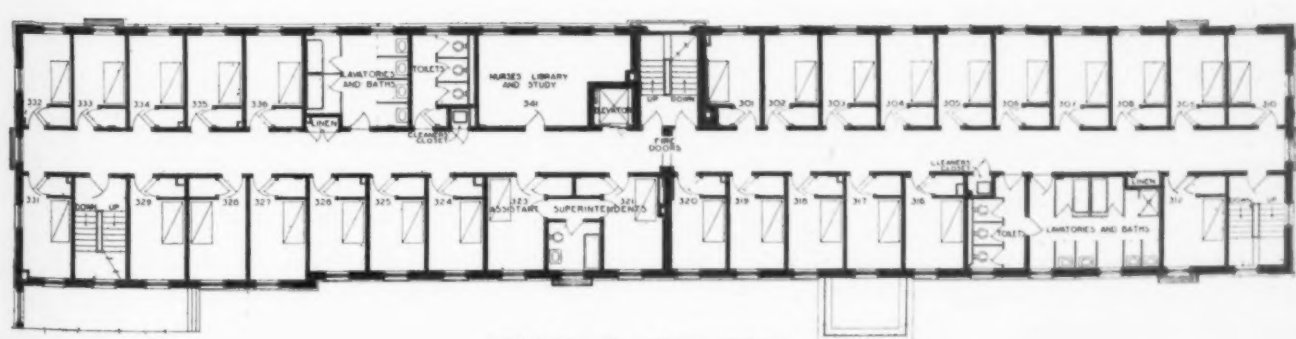
Basement floor plan, nurses' home, Boston Lying-in Hospital.



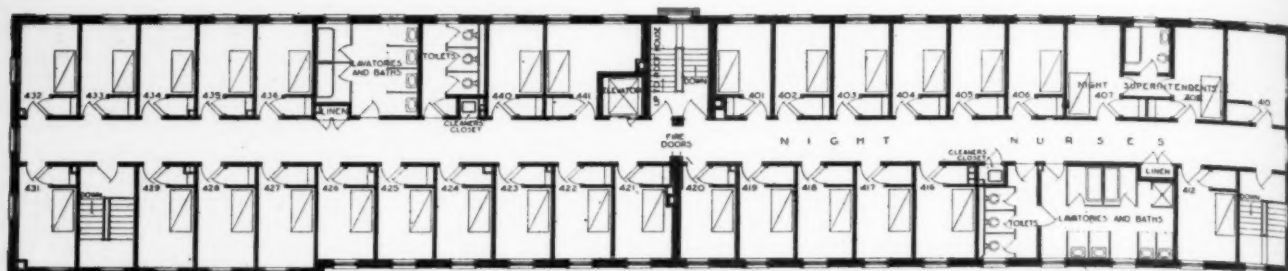
First floor plan of nurses' home.



Second floor plan of nurses' home.



Third floor plan of nurses' home.



Fourth floor plan of nurses' home, Boston Lying-in Hospital.

air risers and in same operation opens the louver cover and steam supply valve to the humidifier coil, permitting the water in the humidifier to vaporize and mix with the air.

Temperature and humidity recorders are placed in a prominent position, recording on 24 hour charts the ranges of temperature and humidity.

A refrigerating plan installed in basement provides ice for all hospital purposes and for cooling cold storage rooms and mortuary boxes.

The electric equipment consists of lighting, power and various signal systems, all of which secure their energy from the power plant of Harvard College.

Ward Lights Are of Two Intensities

There are two somewhat unique features in connection with the lighting, namely the special two intensity ward fixtures, which provide for night-light illumination from the same fixture that provides the normal lighting in all patients' rooms and wards. The other is a special illumination by means of artificial daylight fixtures in the operating room which provides a lighting intensity of approximately 75 to 80 foot candles per square foot over the entire working area of the operating room. The quality of the lighting being an exact duplication of daylight; the nature of the fixtures and the rearrangement removing almost wholly any shadows and giving the nearest to perfection possible with artificial illumination.

There are the usual power applications consisting of elevators, dumbwaiters, motors for driving ice machinery, kitchen utilities, etc., as well as provision for future applications for electric cooking in the main kitchen and diet kitchens. There are special applications of electricity in the laboratories and classrooms, also arrangements for small instrument sterilization. Provision also is made for the usual individual bedside equipment for physicians' use.

The elevators, of the push button type, are equipped with a micro-leveling device to insure their stopping at the exact floor level, regardless of the load. This is a great convenience in moving beds from one part of the hospital to another.

The nurses' signal system is high tension being really an extension of the electric light system utilizing substantial fittings, the work being done in a manner similar and equal to the lighting and power wiring.

The building is equipped with electric time clocks, telephones, watchman's clocks and all other modern electric conveniences for signal communication.

While electricity is extensively used and the equipment is very complete, it has been designed in such a manner as to avoid any unnecessary elaboration and to make everything of the most substantial nature with a view of producing highly efficient workable systems of the lowest possible upkeep and the greatest possible freedom from interruptions in service.

There are few unusual features in the new nurses' home requiring description here. The construction of this building is second class, with floors of Georgia pine. A sprinkler system is installed on all floors. In each bedroom there is a sprinkler head inside the door, with the idea that it would serve somewhat as a water curtain to retard the spread of fire and to allow evacuation of the occupants. There is also a sprinkler head in every closet.

The hospital laundry is planned for in connection with the third building of the group not yet built, provision being made for handling infants' laundry only in the hospital building.

HOME ECONOMICS WORKERS TO MEET

The American Home Economics Association is to meet in Chicago, July 30-August 3, it is announced. Sessions will be held at the University of Chicago, and the program is said to be of special interest to institutional workers and cafeteria managers.

Ford Harvey of the Harvey system, Miss Rena Eckman, head dietitian at Michael Reese Hospital, Chicago, and Miss Effie M. Carp of the Kansas State Agricultural College, will discuss various aspects of the institution problem. A section on food and nutrition is expected to prove of value.

Other speakers include Peter A. Mortenson, superintendent of schools, Chicago; Dr. Grace Abbott, chief of the U. S. Children's Bureau; and Dr. Alice Blood, president of the American Home Economics Association.

THE SIGNIFICANCE AND FUNCTION OF PUBLICITY FOR HOSPITALS*

BY RALPH WELLES KEELER, COUNSELOR IN PUBLICITY, BOARD OF HOSPITALS AND HOMES OF THE METHODIST EPISCOPAL CHURCH.

PUBLICITY for a hospital is as essential as publicity for any other form of city-wide or county-wide public service. In many ways it is more essential than publicity for most other forms of community activity, as it has to do with the establishing of confidence in and good-will towards the hospital's ability to provide that service which the sick and injured need. For the day has not yet arrived when the mass of people understand the value of hospital treatment and the untold service which the hospital renders.

Public Confidence an Essential

Public confidence is one of the greatest assets that any institution can have. And this confidence is especially necessary if the men, women, and children of the community are to put themselves in an attitude of mind which will lead them to see that the hospital is their institution and will minister to them in their hour of need. Good-will is a part of that confidence which brings people unquestioningly to partake of what you have to dispense, regardless of what it is.

Good-will, however, does not come accidentally. It must be created. And the process is long and continuous. But how create good-will? According to a manufacturer whose good-will rates high among his assets, it is gained as follows: by letting people know that you have something; by convincing them that they need it; by putting it where they can get it more quickly, easily and economically than anything else they might get; and by making and keeping them so glad that they have got it that they prefer it to anything of a similar nature that there is to be had.

There is a challenging suggestion here for every hospital. For the principles stated are as true for a service that one may wish to give to the public as for a commodity which a man manufactures

In many ways publicity for the hospital is more essential than publicity for most other forms of community activity, as it has to do with the establishing of confidence and good-will. A manufacturer, whose good-will rates high among his assets, declares that it is gained as follows: By letting people know you have something.

By convincing them that they need it.

By putting it where they can get it more quickly, easily and economically than anything else they might get.

By making and keeping them so glad that they have it that they prefer it to anything of a similar nature that there is to be had.

and wishes to sell. Indeed, it is safe to say that the principles mean more in securing good-will for service, as the manufactured article may be seen before taking, while service must be accepted before its value can be appraised.

In few communities do many persons know much about the hospital and what it is doing for the community. There is usually a wall of ignorance and prejudice which stands to prevent the

hospital from making known its functions, service and ideals; for the hospital as a place to which people would go naturally when sick or injured is a comparatively new idea. To most persons the hospital is a place of last resort. To many the entering of a hospital means that all hope is past, and as a longshoreman once put it, "they give you the black bottle when they get you once inside." This feeling is due in part to the mystery with which the common people surround everything which a physician does. It is also due in part to the fact that the average education of the American people is of about the eighth grade. This of itself precludes very deep reasoning, especially when the mind is faced with the terror which sickness or serious injury stir into being when the hospital is mentioned as the best place for the patient to be.

Added to the difficulties in getting the public's good-will for the hospital because of the ignorance and superstition of the people, is the failure of many hospital executives to grasp the significance and value of hospital publicity. The following paragraph from a letter written by a hospital superintendent is indicative of a state of mind found in many quarters. He writes: "We do not advertise with printed literature or in the newspapers. We put every cent of money into improving our patients, and we expect our patients to advertise us of their own free will and accord. Service is the thing that will advertise a hospital. It is foolishness to spend money to get people to your

*This is the first of a comprehensive series of articles on hospital publicity which is being prepared for THE MODERN HOSPITAL by Mr. Keeler.

hospital and then give inferior service. Give the right sort of service and your patients will give you all the advertising you want free. Not one cent is spent by this hospital in advertising." Manifestly this statement reflects as erroneous a conception of the purpose, content and method of hospital publicity as that held by the mass of people concerning the function and service of a hospital.

Some Fundamental Considerations

Whatever else it may include, publicity for a hospital must be interpretative and educational. It must bring to the public it seeks to interest the concrete story of the every day life of the institution. It must point out the contacts which the hospital has with the total life of the community. It must establish in the minds of the people the fact that the hospital is an institution for public service, and that in a very large sense its usefulness will be what the community at large makes it. Serious-looking physicians and surgeons must become human in the minds of the masses. They must be shown to be fellow-men toiling to help men, women and children in the valley of physical suffering. Nurses must come to mean more than stiffly-dressed young women who report to the doctor and take his directions. The full measure of their ministering service must be shown in concrete story. And the tremendous service given to the public through dispensary, examinations and free and part-pay treatment must be so told as to become a part of the thinking of everyone in the community. The hospital must become *our* hospital, and the sense of proprietorship can be developed only by carefully prepared publicity material that reaches the very people for whom it is written.

Purpose of Series of Articles

The purpose of these articles, therefore, is to discuss somewhat in detail some of the ways and methods that make for effective, constructive hospital publicity; not the publicity whose usefulness passes with its appearance, but that publicity which develops good-will and confidence and establishes interest for all time. For the institution will go on after we have ceased our labors, and those who follow us should never be obliged to relay the foundations of public confidence and loyal support. They should be able to reach out beyond where we have been able to venture—and to reach out thus because of the character of the educational work we have done in behalf of the institution so near to our hearts.

The basis for all publicity is the usefulness, need and value of the thing advertised. Our *apologia* must be sound and convincing. Is this

true in the case of our hospital? There is no questioning the statement that hospitals are greatly needed. Or, that the percentage of recovery in a hospital is one-third greater than in the home? But with this basis and much else that can be said concerning the value and usefulness of hospitals in general, there must be something that can be said specifically about our own hospital. The institution must be of high grade. Its standing in the community must be unquestioned. The character of the work it does must be up to the ideals of the highest standards for physicians and surgeons and the finest type of institution in its peculiar form of service. People are interested only in the best, and people who are asked to give of their means towards the support of institutions do not care to put their money into an enterprise that is not worth while.

All publicity must have a purpose. Much publicity today fails to secure results because this fundamental necessity is not taken into account. One cannot say, "We will have publicity," and forthwith begin the preparation of material to that end. Before the preparation of publicity material there must be a careful study or survey. Otherwise one does not know what material to use, how to prepare it, where to use it or what can be hoped in results.

Discovering Our Publicity Task

This survey involves a thorough-going analysis of the work the hospital is doing, its ideals and needs, the listing of the various types of people who ought to have this information, the form in which the material should be prepared to reach the minds of each different group, the method of its preparation, the channels through which it may best be distributed, and the selection of some one qualified to do publicity work.

In all of this study there must be kept in mind what it is that one hopes to have the publicity accomplish. For every bit of publicity material that goes forth should be so prepared and printed or spoken as to secure, or be a part in the process of securing, certain definite results.

In analyzing the work of the hospital for the purpose of discovering what there is that can be used for publicity purposes, it should be borne in mind that what is commonplace to us as a part of the day's routine, is often of intense interest to those who are unfamiliar with it, if presented to them in an attractive way.

There is a bit of philosophy for us right here in the advertisement of Associated Engravers, Inc., in the *Advertising Club News* of New York City. Under the title "The Same Old Story," the following is printed:

"The leader of the orchestra doesn't like even the best show after the first twenty nights. He hates the comedian and the same old jokes.

"But the box office receipts pile up. The theater is crowded. The people laugh at the same old stories (or what the orchestra thinks are the same old stories).

"So, when we are apt to grow tired of talking about real engraving service, about making the best engravings we can and our ideas of friendship in business—we remember that in this instance we have the viewpoint of the orchestra leader—and we keep on telling the same old story."

It is well to go over each department of the hospital and list up the day's activities from the beginning of one day to the beginning of the next day. This will mean a lot of detailed descriptive material, nearly all of which can be used effectively in the days ahead. It may be the number of loaves of bread or pounds of butter used monthly. It may be the number of beeves or sheep used in a year. It may be six months' consumption of soap or the number of beds made up by the nurses. It may be developments in the research department or some unusual operation. The list will be long and suggestive.

Once everything is carefully listed, the uses that can be made of it all become increasingly apparent. The people who would be interested in one item or another begin to emerge in our thinking. Forms of presenting the material in an attractive way begin to suggest themselves. Channels through which it may go forth on its mission suddenly open up to our mind. The possibilities and magnitude of it all grip us. We realize that it cannot be anybody's job, that some one with special fitness must do it, or else some one must be trained to handle it.

Three Forms of Publicity

There are certain well-defined groups who must be interested in the work and future of the hospital. A few will suggest others. There are the city officials, the chamber of commerce, the physicians and surgeons of the community whose patients are desired, young women who may become nurses, newspaper men and women, fraternal orders, women's clubs, medical and hospital publications, former patients, young people who later will be influential in the affairs of the community, foreign-speaking people, ministers, church people as such, organizations within the church, boy scouts, camp fire girls, public school children, and the public at large. In addition are those people of wealth in the community whose financial help must be sought at times.

Generally speaking, there are three forms of publicity. These are the printed message, the spoken word, and the type-written communication. Each of these has a multitude of sub-divi-

sions and adaptations, and each has its own particular merit for specific purposes. For instance, the printed message can go everywhere and reach all classes. It enters closed doors and delivers its content persistently in public and in private. It proclaims itself patiently in spite of opposition and argues convincingly and with courtesy. It is not laid aside by illness. It needs no vacation and it lives long on little. It makes many converts.

On the other hand, the spoken word has the advantage of personal contact. The speaker looks into the faces of those to whom he delivers his message. He can tell whether or not he is getting his message across. He is right there on the spot to answer any questions that may arise. Moreover, he is able to appraise his audience before beginning to speak to them and thus be sure he is shaping his message aright for the particular group that are to hear it.

With the use of the type-written communication still closer intimacy is possible. There is opportunity to go into minute detail concerning a particular phase of hospital work that is of special interest to the person for whom the letter is being written.

All Forms Have Their Uses

But these three methods are not to be compared with each other for the purpose of disparaging any one of them. In their practical use as vehicles for publicity they supplement each other. One is used where the others would not be practical. Or two are used where the third would not meet the situation adequately.

With some of these things in mind it is easier to formulate the purpose of the publicity to be used. It may be to keep the public informed and to develop a background of interest. It may be to secure patients or workers. It may be to secure financial aid or supplies. Whatever it is, the analysis made and the study of the results, together with the possible uses of the material, give a basis for working out a publicity campaign of interpretation and education.

It should be borne in mind that not everything can be done at once. It takes time to develop anything that is worth while and enduring. And publicity for a hospital should not be spasmodic. A persistent campaign of publicity such as is carried on by the average successful business house would be as effective and is as essential for a hospital as for a business house. Therefore utmost care must be taken every step of the way. This does not mean that one should be so conservative as not to begin any publicity until the whole subject is mastered. On the contrary, some forms of publicity should be undertaken at once—only so

much should not be started that what is done cannot be done well.

Preliminary to the detailed discussion of the several forms of hospital publicity mentioned, a few concrete suggestions may not be amiss. For they indicate somewhat the carefulness that is necessary. For nothing reacts so disastrously as publicity that is not true to the facts and which in any way seems to misrepresent that for which it stands forth as an advocate.

Some Definite Suggestions

1. Train someone to do your publicity and give him an opportunity to do it.
2. Always use the full corporate name of your institution. Thousands of dollars left in wills have failed to reach the institution for which they were intended because of the testator's ignorance at this point.
3. Visit automobile, electric and food shows and the like in order to get up-to-date printed matter for suggestions.
4. Study the advertising in the magazines and in your local paper.
5. Get a newspaper man or an advertising expert interested and make him a member of your board of directors or trustees. Then take his advice and give him something to do.
6. Make every patient a booster.
7. Make definite propositions as to what definite sums of money will do.
8. Remember that cheap printing is expensive.
9. Keep in mind the fact that leaflets are of no use unless in the hands of the people for whom prepared. Study distribution.
10. Put some other hospitals on your mailing list and have them put you on theirs, so as to be able to see what others are doing in the way of printed matter.
11. Never hesitate to let the public know the purpose of your institution, how it is run, what it costs to run it, how it is supported, etc.
12. Stories of actual experience have the strongest appeal.
13. Study advertising for endowments, annuities and legacies.
14. The hospital's reputation is an important factor. Let it once acquire a reputation for indifference to the needs of the poor, and appeals, however skillfully made, will bring ever-diminishing results.
15. An attractive letter-head which is carefully thought out and well printed is a constant medium of publicity.

The Hospital's Opportunity

The hospitals of the United States are rendering the public a service that is little dreamed of

by most persons. Day after day they pass the hospital building, which to them is a cold, forbidding institution to be shunned as the plague. They have no vision of the ceaseless ministry that goes on behind those walls. They know nothing of the skillful surgeon who is operating to give added years to some sufferer. They have not heard of the physician who battles with death through the night in order that a life may be spared. The busy hours of the nurses mean nothing to them. It is just a hospital.

How different it will be when we make known the story of the multitudes who have never heard it told. The hospital walls will blaze with glory then. "Where cross the crowded ways of life" men and women will be singing the praise of *our hospital*. Race, color and creed will fade away into insignificance before the recognition of the wonderful service being rendered to "just plain folks."

DR. YOUNG TO HEAD HOSPITAL AT SYRACUSE UNIVERSITY

Dr. Charles H. Young, superintendent of the Presbyterian Hospital of New York City, has been elected head of the Hospital of the Good Shepherd, Syracuse University. Dr. Young was graduated from the Maine Eye and Ear Infirmary, Portland, Me., in 1906, after having completed the course at Tufts Medical College, Medford, Mass.

Dr. Young assumed his duties on March 22, relieving Dr. Herman G. Weiskotten, dean of the college of medicine at Syracuse University, who was acting head of the hospital in place of Miss Nellie R. Hamill, resigned, who has been superintendent for the past nine years.

During the World War, Dr. Young was chief of hospitalization base section No. 3. He had charge, under the chief surgeon, of all U. S. hospital construction, organization and management in Great Britain for eight months before the end of the year, with 25,000 beds under construction.

The new superintendent of the Good Shepherd has a wide range of interests in New York City, being listed as a director of the New York Out-Patients' clinic, the New York Social Service Association and the Society for the Suppression of Vice. He is a Rotarian, a member of the State Charities Aid Association, the American Hospital Association, the American Public Health Association, the American Reserve Officers' Association, the Harvey Society, a fellow of the New York Academy of Medicine and a lieutenant-colonel in the medical officers' reserve corps of the army.

\$1,500,000 HOME AND SCHOOL FOR MOUNT SINAI NURSES

Plans have been made for a \$1,500,000 training school and home for nurses at Mt. Sinai Hospital, New York, it has been announced. The new structure will be the eighteenth building maintained and supervised by the institution. Half of the cost has been promised by the trustees.

The new school will accommodate 400 nurses, as against only 220 who are housed in the present building on Madison Avenue. It will be built on a plot 100 by 125 feet. Mrs. Otto H. Kahn gave the hospital an adjoining lot on Ninety-ninth Street, near Fifth Avenue, to form part of the plot.

THE DESIGN OF NEUROPSYCHIATRIC HOSPITALS FOR WORLD WAR VETERANS

BY F. CHARLES STARR, IN CHARGE OF VETERAN'S HOSPITALS CONSTRUCTION SERVICE, QUARTERMASTER CORPS, U. S. ARMY, WASHINGTON, D. C.

ONE of the most difficult problems facing the government at the end of the World War was to provide suitable hospital facilities for veterans suffering with mental diseases. The hardships, deprivations and horrors of war unbalanced many a man's mind, some to a greater, some to a lesser degree, but fortunately in the majority of cases not beyond permanent recovery with proper care and treatment. The difficulty was to provide such care and treatment. By using existing permanent, as well as many temporary, general hospitals, the general medical and surgical and indeed the large number of tuberculous cases, were well taken care of, but for mental cases sufficient hospital accommodations simply did not exist. All available hospitals equipped for caring for such patients were immediately utilized to their fullest capacity, but the majority of cases had to be cared for in some form of contract or private hospital. Some of these were excellent, but too many were far from it, though the best available.

On April 20, 1922, Congress passed the so-called second Langley bill providing \$17,000,000 for hospital facilities, and placed the responsibility of spending this money with the director of the U. S. Veterans' Bureau. A stipulation in the bill provided, however, that not to exceed the sum of three per cent of the cost of the hospitals could be used for their design and supervision of construction. Only by using existing government agencies as much as possible could this be accom-

plished, so the War and Navy Departments were called upon for such assistance. A brief description of the sites selected and the hospitals as planned and being built by the Construction Service, Quartermaster Corps of the Army, follows:

Description of Sites

For administrative purposes in the Veterans' Bureau, the United States was divided into fourteen districts, based on the military population, and as near as possible it was desired that each district be provided with suitable hospital accommodations. Since the necessary facilities could be provided from the funds available only with the strictest economy, it was endeavored to obtain as many sites as possible without expense to the government, and the majority were so obtained. Hundreds of sites were considered and dozens carefully examined. To be satisfactory, sites should be near the center of the population to be served, have suitable railroad connections, be preferably on main highways, be of sufficient acreage for expansion with possibilities for occupational therapy, have satisfactory building sites with proper satisfactory sewage disposal, and be near local markets. Sites with all these requisites were manifestly not easy to obtain and were secured only after extended investigation.

The citizens of Northampton, Mass., furnished the first site. It is located about two miles north of the city on a main highway and a branch of the New York, New Haven and Hartford railroad.



Birds-eye view of the U. S. Veteran's Hospital at Camp Custer, Mich.

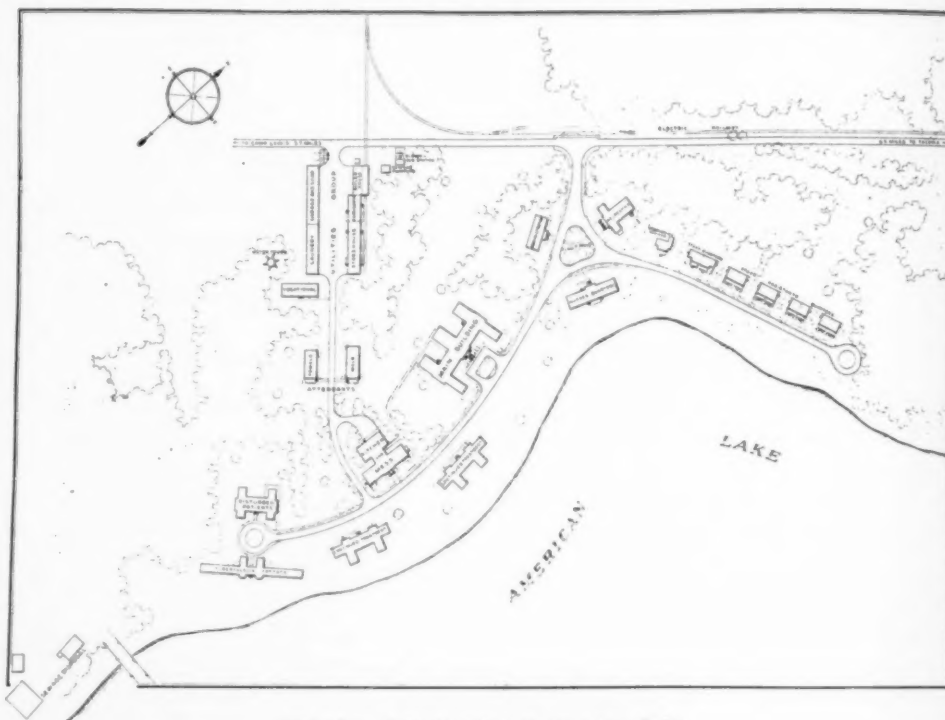


Birds'-eye view of the U. S. Veterans' Hospital at American Lake, Wash.

It contains 282 acres and has an unusually attractive building site on a hill overlooking the Connecticut River valley to the south. Connections are made to the city water and sewer systems, and favorable rates are obtained from the local electric utility company. A spur track extends into the hospital grounds and so facilitates transportation. A 435 bed neuropsychiatric hospital is being erected.

For Ohio and Indiana a portion of the government-owned Camp Sherman site at Chillicothe, Ohio, was set aside for a hospital. Besides being an attractive location for a hospital, it is on a state highway, with a railroad spur, and can connect with existing sewer, water and light lines on the reservation. Excellent opportunity will be provided for farming and

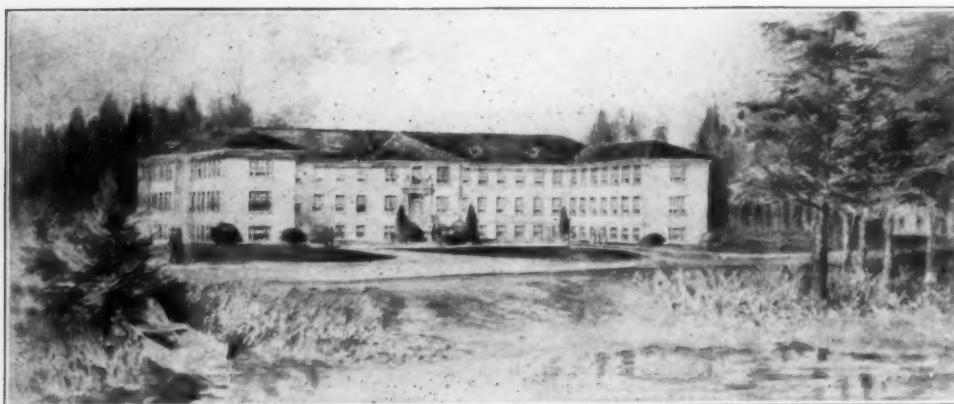
ing and gardening in connection with the hospital. The site is on the outskirts of the town and



Plot plan of the hospital at American Lake.

has a railroad spur on the property.

To serve the northwest, a neuropsychiatric hospital of 260 beds is being built on the government-owned reservation of Camp Lewis, near Tacoma, Wash. Some 400 acres have been set aside for the purpose in a fir-covered section on the west shore of American Lake, a particularly beautiful spot. A main highway runs near the site, the main line of the Northern Pa-



Main building, U. S. Veterans' Hospital, American Lake.

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May, 1923

THE MODERN HOSPITAL

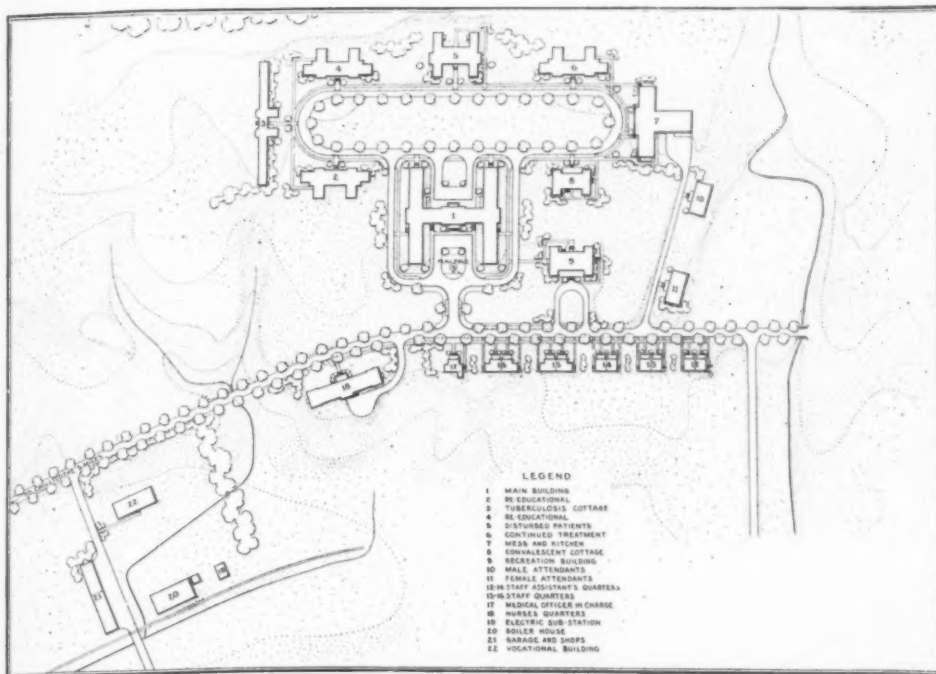
435

cific Railroad is within two miles, and an electric line connects Tacoma with the reservation. Water of unusual purity is available from the existing Camp Lewis system and electric service is obtainable at very favorable rates.

The middle-northern states will be served by a 520 bed neuropsychiatric hospital on the government-owned Camp



Main building, U. S. Veterans' Hospital at Chillicothe, Ohio.



Plot plan of the hospital at Chillicothe, Ohio.

Custer reservation, ten miles from Battle Creek, Mich. An attractive section of the camp overlooking the valley to the west is set aside for the hospital. Connections to the camp water, sewer and electric systems can be made. A state highway passes near the site and a spur from the Michigan Central railroad is now on the reservation.

Two more neuropsychiatric hospitals, one of 200 beds at St. Cloud, Minn., and one of 250

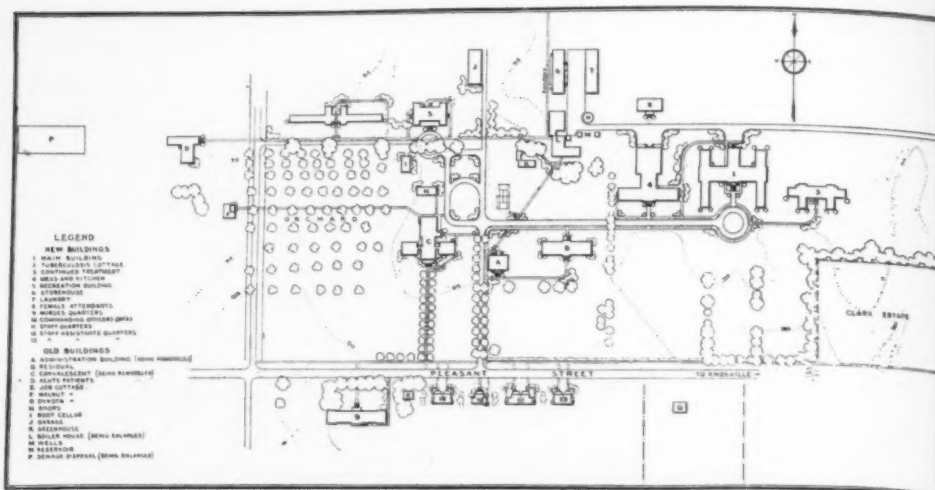
beds at Gulfport, Miss., are being designed and built for the Veterans' Bureau by the Bureau of Yards and Docks, Navy Department.

The program laid down was to provide modern fireproof hospitals with the requisite number of beds, complete with all mechanical equipment and all outside utilities such as roads, walks, sewers, heating plants, water and light lines, of an economical design, void of all unnecessary adornment, and all in the shortest possible time. Just as soon as sites were selected therefor,

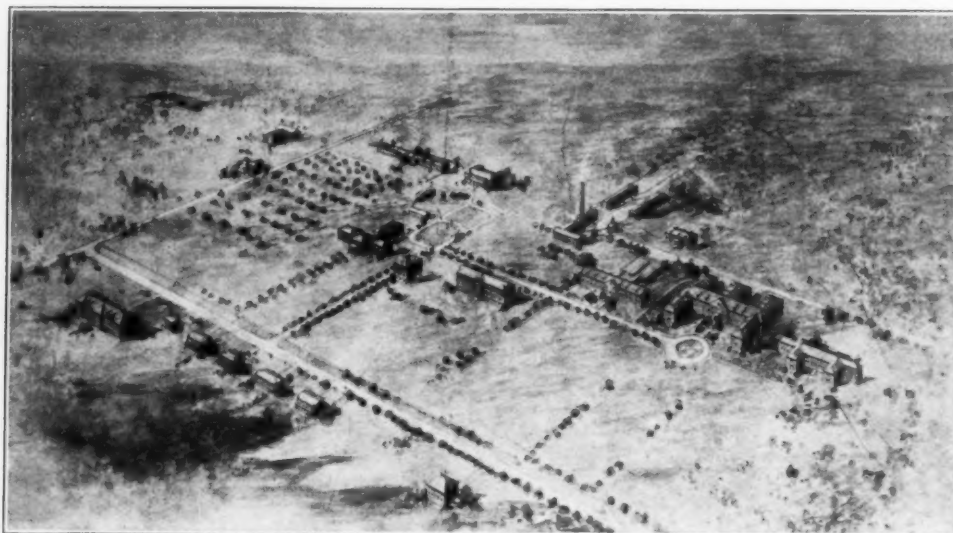


Birds'-eye view of the Chillicothe hospital.

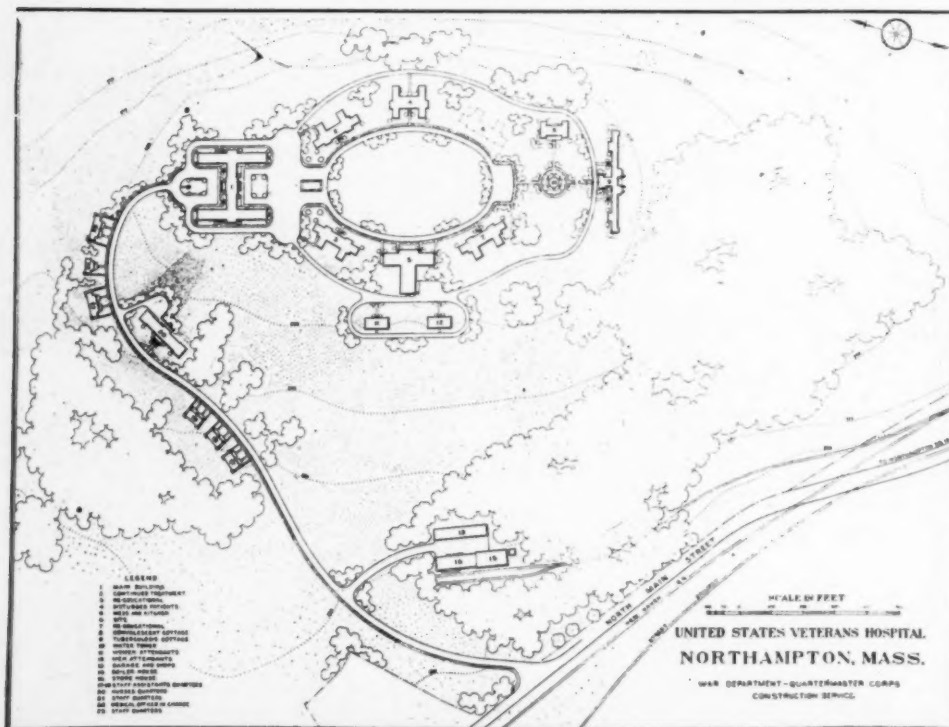
designing was immediately begun, and pushed to completion so that by the end of February, 1923, the plans of all five hospitals were completed, bids obtained and contracts let, with early dates for occupancy. The hospital at Northampton, Mass., is to be ready in February, 1924; Chillicothe, Ohio, in December, 1923; Knoxville, Iowa, in August, 1923;



Plot plan of the U. S. Veterans' Hospital at Knoxville, Iowa.



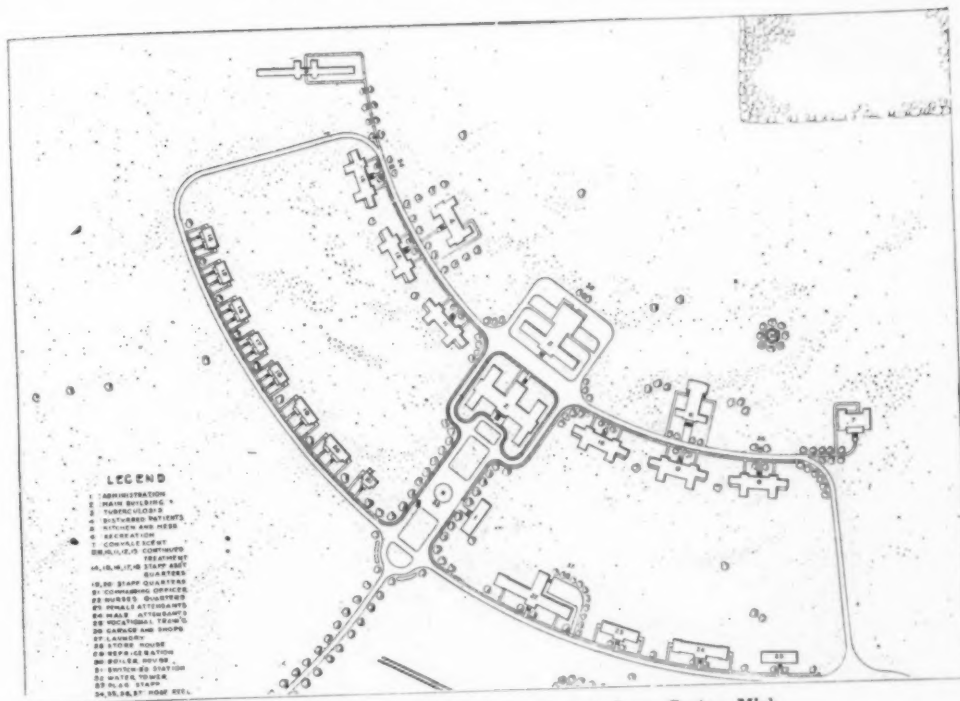
Bird's-eye view of the Knoxville institution.



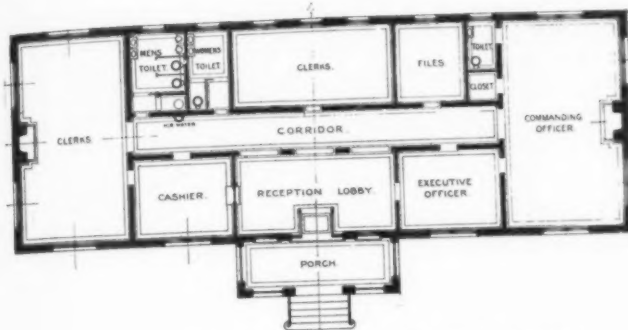
Plot plan of the U. S. Veterans' Hospital at Northampton, Mass.

American Lake, Wash., in October, 1923; and Camp Custer, Mich., in July, 1924.

In order that these hospitals would meet the special needs of the men to be treated in the very best manner possible, intensive study was given every phase of the requirements and the best medical specialists consulted. In planning the hospitals not only the grouping of the buildings, but the arrangement of rooms was so worked out as to function best toward the end of bringing patients back to normal condition as quickly as possible. They are



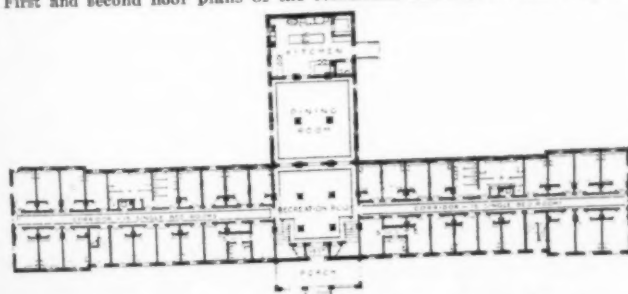
Plot plan of the U. S. Veterans' Hospital at Camp Custer, Mich.



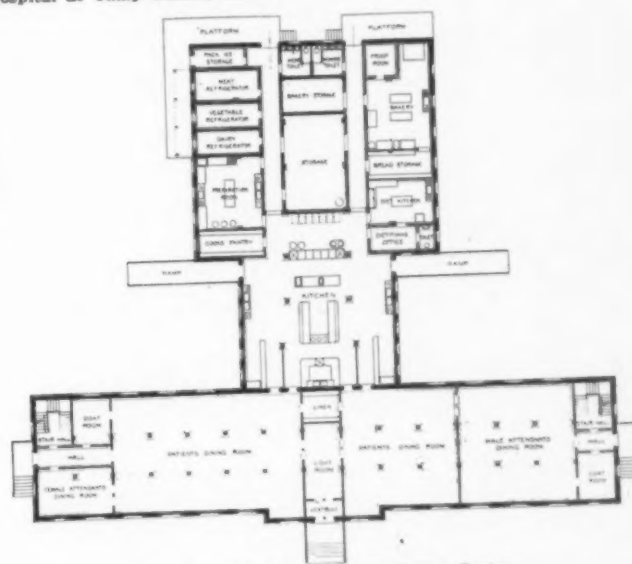
Plan of administration building, Camp Custer hospital.



First and second floor plans of the recreation building at Camp Custer.



First floor plan of the nurses' quarters at Camp Custer.



Mess and kitchen plans at Camp Custer.



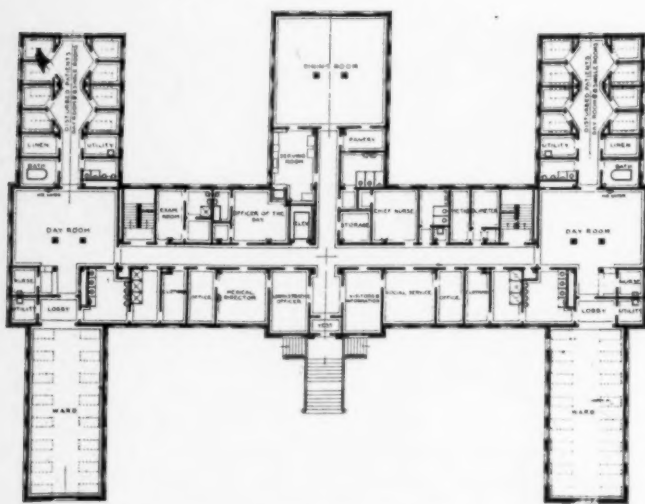
Basement plan of main building at Camp Custer.

not asylums but hospitals, where men with diseased or unbalanced minds can be treated sympathetically, yet scientifically, and nursed back to health just as for any other disease.

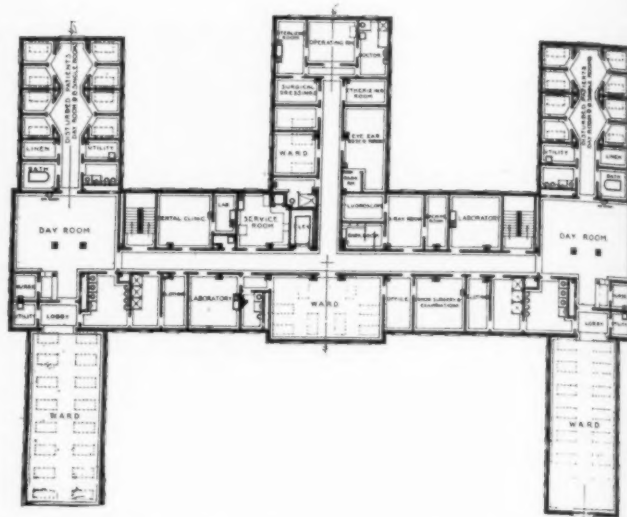
All the hospitals are located in the country with plenty of land, free from the disturbing influences of the city, yet near enough for economical administration. Each is a complete self-contained institution with all auxiliary buildings and utilities laid out with plenty of breathing space; this requirement added to the cost of the projects, as

compared with city institutions, but was considered essential.

In general the buildings are grouped according to their functions. The officers' quarters and nurses' quarters are near enough to the hospital proper for convenience, but remote enough for privacy. The business of the institution usually is carried on in a separate building near the entrance to the grounds, while the utility group is located at one side. The patients are all received at the main building receiving ward, where they



First floor plan of main building, Camp Custer.



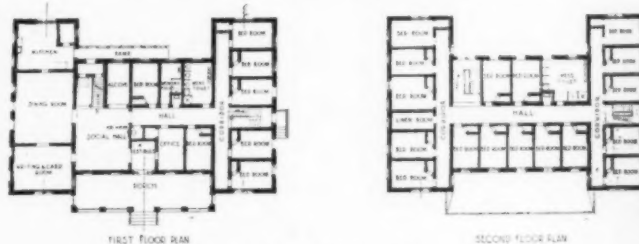
Second floor plan of main building, Camp Custer.



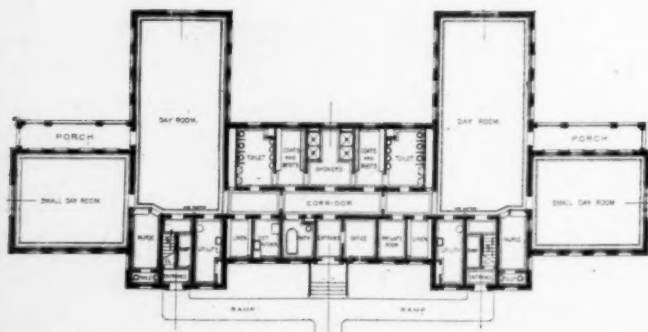
Plan of first floor, disturbed patients' building, Camp Custer.



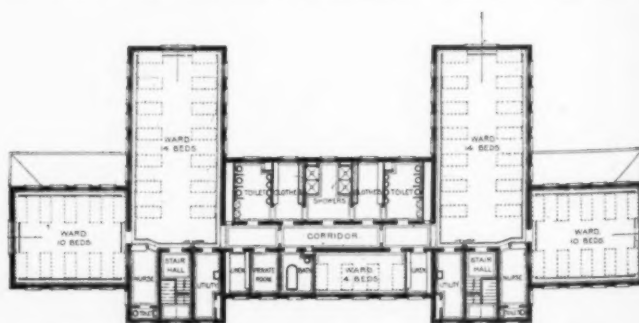
Floor plan of tuberculosis building, Camp Custer.



First and second floor plans of convalescent building, Camp Custer.



Plan of first floor, continued treatment building, Camp Custer.



Plan of second floor, continued treatment building, Camp Custer.

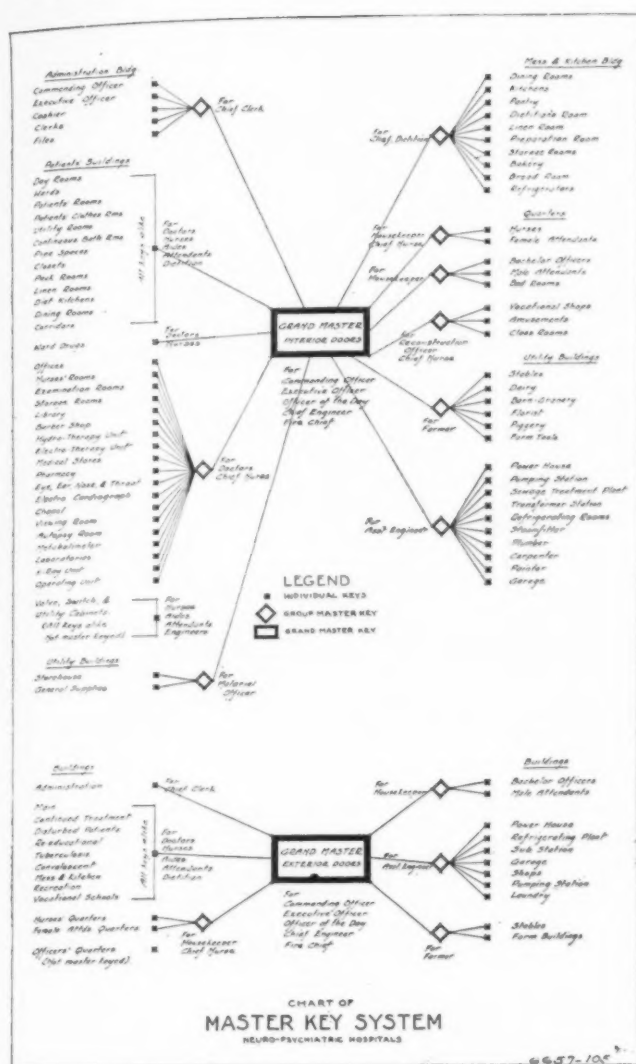


Chart of master key system employed in neuropsychiatric hospitals of the U. S. Veterans' Bureau.

are examined and histories obtained. Here they are kept for observation for a period, the acutely ill remaining longer. On leaving the receiving ward, chronic cases are placed in a continued treatment building, while the more promising cases are transferred to a re-educational building. Later, as the patient progresses, he is assigned to a convalescent cottage, prior to his discharge from the hospital. A separate building is provided for tuberculous patients, while the violent or particularly disturbed cases are cared for in a disturbed patients' building. Always considering the patient an ill man, he is classified and assigned the group that his particular condition warrants, where he may have the treatment, associations, privileges and occupation best suited for him.

General Plan of Hospitals

Since vocational training plays a large part in the treatment of mental diseases, liberal accommodations are provided for this work. Clinics are all located in the main building, ample pro-

vision being made for eye, ear, nose and throat, metabolimeter, x-ray, dental and operating suites, as well as bacteriological, pathological and biological laboratories. The hydro-therapeutic suite is particularly complete for these patients. Special attention has been given to insure proper food service in the arrangement of kitchens and dining rooms for both bed and ambulant patients. In general all patients are provided with both day rooms and night wards, to prevent crowding and to allow as much freedom and comfort as possible; in fact, this has been done to an unusual extent.

Details of Construction

In the detail design of the structures simplicity was sought, not only for its own merit, but because of limited funds which demanded it. Strictly fireproof patient buildings are provided, none over two stories in height. The buildings are of reinforced concrete columns and floors, with brick walls and slate roofs, except at American Lake where the walls are tile stuccoed, with Spanish tile roofs. Special attention was given to location of ample stairways for exit, there being always at least two possible exits. At least 800 cubic feet of air was allowed per patient. Metal trim is used extensively as are flush doors and coved corners. Ward floors and corridors are of lineoleum or hard mastic, and toilets of tile. Plumbing fixtures were specially selected for the type of patients, serviceable and sanitary.

Particular attention was given to prevent any patients from getting scalded not only by using a thermostatic mixing valve which regulates the temperature of the water within two degrees and automatically shuts it off if it gets too hot, but also by another valve, electrically controlled, which independently shuts off the water if too hot. Water treatment being an important part of the treatment of neuropsychiatric patients, continuous baths and showers are used extensively.

Nooks and corners where patients could hide were particularly avoided and special care was given to protect disturbed patients from injuring themselves or the equipment. Night floor lights and non-glare ceiling lights were provided in all wards, and special flush ceiling lights in disturbed patient rooms. Particular attention was given to locks and the system of master-keying in order that proper control and protection would be obtained, to ensure every one having a key that should have one, and none that should not.

Although these hospitals are complete institutions, in the country rather than in city blocks, composed of comparatively small buildings covering considerable areas, with all auxiliary fea-

tures such as railroad spurs, roads, heating plants and distribution mains, storehouses, refrigeration plants, laundries, garages, and officers', nurses' and attendants' living quarters, extended water mains with usually pumping plants and sewage treatment stations, also considerable grading and improvement to grounds, with buildings of fireproof construction, with complete modern equipment, and unusually liberal space allowance per patient, they are being constructed for about \$4,000 per bed complete, in spite of the high cost of labor and material.

Hospital designing being a progressive art, a plan is no sooner finished than it is realized that it could be improved in some particular. The

problem of providing neuropsychiatric hospitals for World War veterans however was to design simple, practical, fireproof institutions, which would function efficiently and to get them built quickly. Prolonged discussion on relative merits of certain features was impossible, so all requirements had to be assembled promptly, intensive study made thereon, and plans rushed, economy of design always being an important factor. The neuropsychiatric hospitals now being built were designed with the particular needs of the patients to be treated always in mind, however, and it is hoped that they will amply serve those disabled veterans who so manifestly deserve the best their country can give them.

THE STORY OF THE CLEVELAND HOSPITAL COUNCIL*

BY HOWELL WRIGHT, ATTORNEY-AT-LAW, DIRECTOR OF THE CLEVELAND HOSPITAL COUNCIL, CLEVELAND.

“CONCERTED action for common benefits” is the story of the Cleveland Hospital Council. The accomplishments of seven years are not the result of the wielding of autocratic power or the activities of any one person. They are the result of the best cooperative efforts of many capable hospital trustees, superintendents and other persons genuinely interested in the development and advancement of community hospital service.

This agency, beginning as an informal voluntary association and later incorporated, first served its membership from a small, single office with a staff of two persons. Today, it occupies 2,000 square feet of office space and has a paid staff of seventeen persons. Its first budget was \$6,000. The 1923 budget is \$46,745. Appropriations to carry on its activities are provided by the Cleveland Community Fund.

Twenty hospitals (two tax-supported and eighteen public, charitable hospitals) constitute the membership. Each hospital appoints three representatives—usually a trustee, the executive officer and a visiting staff member. These, at the annual

Twenty Cleveland hospitals are organized in the Cleveland Hospital Council, an incorporated association for mutual benefit. The hospitals have a common obligation, according to agreement, to assist each other by coordination of action and by the development of the most efficient methods in the performance of their functions. The Council's purposes include the simplification of problems of management, prevention of duplicated effort, elimination of waste, reduction of costs, improvement of services, education of the public, initiation and approval of wise local and state legislation, and other similar activities which will promote the common interests of its members.

meeting, elect the board of trustees and officers of the Hospital Council. The members meet at least four times a year but the board of trustees, which is largely responsible for the conduct of affairs, meets at least once a month. Use is made of special committees for advisory purposes on such matters as legislation, collections, purchasing and standards and dispensaries.

The Hospital Council from its very beginning has been democratic and representative in character. Its governing body of trustees is vested only with limited powers. No right of supervision or control over the constituent member hospitals exists. The Council can do only what the members agree to do and authorize to be done by their agent. Even then, its acts are not necessarily binding upon the member hospitals for each member is controlled by its own board of trustees. Neither by expression or implication does there exist any centralized control.

The Hospital Council, with its represented hospitals, may be likened to certain voluntary or incorporated associations of large business corporations. In general, its object is to preserve and promote the common interests of the constituent members. It is agreed that hospitals have a common obligation to assist each other

*The first of a series of articles on the history and activities of Cleveland Hospital Council. The second article will deal with the Hospital and Health Survey, and the third with the Council's purchasing service and the principles of cooperative centralized buying.

by coordination of action and development of the most efficient methods in the performance of their functions, thereby simplifying the problems of management, preventing duplication of effort, eliminating waste, reducing costs and improving service rendered; to give the public an intelligent accounting of their stewardship; to educate the public to a substantial degree of willingness to give moral and financial support; to initiate and favor wise local and state legislation and to oppose all legislation inimicable to their field of work. While the chief object of business concerns so associated is to increase profits, the aim of the hospitals, so associated in a common organization, is to increase and improve the service rendered to the community.

The Council's Program

In 1916, the members of the Hospital Council asked themselves this question: What can the hospitals do through a central organization to increase their own efficiency to the end of better meeting Cleveland's hospital needs? The answer is found in the adoption of the following constructive program which, in the main, has been adhered to throughout:

Adopt business economies found wise locally or elsewhere, such as the storeroom system of control and distribution of supplies and cooperative buying.

Adopt uniform accounting systems; uniform, at least, in the essential particulars of modern hospital accounting, which will make it possible at all times to give the public an intelligent statement of the work done and the unit cost of the same.

Promote the feeling of responsibility on the part of the hospitals to know and to better the social factors influencing their patients as individuals and members of the community.

Keep informed, through the central organization, of all legal matters and all legislation, local or state, affecting the work of any one or all of the hospitals in the Council.

Cooperate in matters of medical and nursing education. Substitute cooperation for competition in securing interns and in the work of securing and training of nurses.

Cooperate in urging the municipal, county and state authorities to assume their full responsibilities toward the sick and for the removal of conditions which are responsible for sickness and injury. Treatment of cases of preventable sickness and accidents now forms a large part of the work of the hospitals. Reduction of these will not only save suffering, but the cost of the care.

Cooperate with the city and state divisions of health in meeting obligations toward the public health.

Consider the needs of Cleveland as a whole in the planning of new hospital and dispensary facilities; their relation to existing facilities; their weaknesses and strong points; their concentration and their distribution.

Make the Hospital Council the center of hospital coordination and progress in Cleveland.

Before taking up the larger problems involved in modern hospital work, it was deemed advisable to study financial questions. Especial consideration was given to rates and charges made for the

various classes of hospital service, as well as to existing systems of accounting. It was early agreed that hospitals should not rent private rooms at a rate less than their full maintenance cost; that hospitals should not rent their beds for cases for which industrial or other corporations were morally and by the Ohio laws responsible, at less than cost. "Hospital cost for service rendered" was adopted as a policy.

Prior to this time, it is doubtful if the officials in any one hospital knew the rates for service charged by others. In a sense, at least, it was considered as secret information. There was competition between some of the hospitals to secure industrial accident work. Hospitals sometimes actually bid against each other for such work, without common knowledge of the fact. A study of per capita costs and rates followed, with the result that private room rates and ward rates have gradually been increased in relation to the cost, and a large saving has accrued to the charitable funds of the community. In dollars and cents this saving has amounted to over a half a million dollars.

Care of Industrial Accident Patients

For several years, the Hospital Council struggled to secure the adoption of the "cost" principle by the state industrial commission. This involved many weary steps. It was necessary to secure the enactment of legislation removing the maximum amount which might be paid by the state for medical and hospital care of a single case and also the enactment of a law creating the state hospital bureau with authority to secure uniform facts as to hospital costs throughout the state. Articles on the subject of doing "charity work" for the state had to be written and published. Public hearings were necessary. The final step was taken July 1, 1920. At the request of the industrial commission, the Hospital Council recommended a plan whereby the hospitals might be compensated by the state on a just basis for the care of injured workmen. In the conduct of the case before the industrial commission and in securing the cooperation of hospitals throughout the state, the secretary of the Ohio Hospital Association joined and rendered most effective service. The rules governing hospital charges, as adopted by the commission, give recognition to the "cost" principle and practically put an end to the day when Ohio hospitals must do "charity work" for the state. In substance, the new plan means an individual agreement between the commission and the individual hospital on the basis of cost, with a maximum rate of \$6.00 per day.

The industrial commission deserves great credit

for this progressive action which has attracted the attention of other hospital groups, both state and national. The rules governing this plan are relatively simple.

Within a few days after the first of each calendar year, each hospital, through its proper official, as a basis for entering into an agreement with the industrial commission of Ohio, formally advises that body of its patient day cost for the previous year and certifies that this statement agrees with the report submitted by the hospital to the state department of health, as required by law. It is further certified that the patient day cost does not include certain capital charges, but does include all expense of operating room service, anesthetic when administered by an individual in the employ of the hospital, drugs, medicines, dressings, board of special nurse, ordinary nursing service, x-ray service, and all service rendered by hospital interns and orderlies.

In performance of its part of the agreement, the industrial commission agrees to pay each hospital the patient day cost stated for the previous year for hospital, medical and nursing care rendered individuals protected under the provisions of the workmen's compensation act and recognized by the industrial commission as a legitimate expense against that fund.

As the result of several years' experience, rules and regulations governing hospital contracts have been worked out in detail and contain important definitions and instructions. These rules give recognition to the principle of arbitration in that disputed cases arising out of any contract may be referred to a committee, representing the industrial commission, the department of health and the hospitals of the state. Appeal is permitted from the decision of this committee to the industrial commission. Any organized group of hospitals, wishing to take up such questions in any other state, would do well to familiarize themselves with the results of the Ohio experience.

A conservative estimate of the financial benefit that has resulted to the hospitals of the state—to say nothing of the benefit to the injured workmen—is at least three quarters of a million dollars a year. To the hospitals in Cleveland alone this has meant at least \$150,000 annually.

Patient and Financial Accounting

One of the most important of the financial problems considered was that of uniform reporting and accounting. The adoption of the maintenance cost principle fully emphasized the need of this uniformity. It was found that no two hospitals had a common system of reporting the number of patients treated in either hospital or dispensary

or the number of days of treatment given, and that there was no common method of figuring the cost of the service rendered. It was agreed that a uniform accounting system, uniform at least in the essential particulars of modern hospital accounting, ought to be worked out and a uniform report blank adopted which would give the public an intelligent statement of the work done by each hospital each fiscal year and the unit cost of the same. There were many difficulties to overcome, but such a blank has been finally worked out and adopted. It became effective January 1, 1917.

The report blank was divided into two parts—first, "Work Done"; second, "Cost of Work Done." Careful instructions for its use were given. The hospital patient was properly defined for purposes of reporting and was separated from the out-patient and all other persons not properly coming within the classification. Instructions were given for taking the daily census and for figuring the number of days of treatment given. Most important of all, however, was the grouping of hospital patients as follows:

1. Pay patients, or those for whom at least the cost of their care is paid.
2. Part-pay patients, or those for whom only part of the cost of their care is paid.
3. Free patients, or those for whose care nothing is paid.

It was specified that patients, whose bills for hospital services were uncollectable, should not be accounted for as "free patients." Bills for such service were accounted for under "Uncollectable Bills for Hospital services, charged off." Dispensary patients and emergency or accident cases remaining in the hospital less than twenty-four hours were reported separately and not included under these headings. Under these three headings, each hospital reported on the basis of the calendar year as the fiscal year, the total number of patients, the total number of days of treatment given to each group and the amount received for the care of pay patients and part-pay patients. There was also a separate item "public charges" to be used by municipal hospitals or other public hospitals caring for patients accepted by the county, city or township. This grouping was simple and easily adaptable to the accounting system of any hospital.

In the financial report, hospital income was classified under "operating earnings," "contributions," and "capital income." Expenditures were classified under "operating expenses" and "capital expenditures." While the blank did not contain the often innumerable headings for distribution and detailed itemization of all expenditures, it sought to obtain the all-important items: (1) total operating expenses, and (2) average daily per cap-

ita cost per patient. Careful instructions were given for figuring the total operating cost, the average daily per capita cost per hospital patient, as well as the average cost per dispensary visit. All-important in this connection were the figures, "total number of days of treatment given" and "total number of dispensary visits." These forms were used for a number of years in reporting direct to the Hospital Council. The classification of patients into "pay," "part-pay" and "free" groups has been adopted by other organizations and the essentially important features of these forms have been adopted by the state hospital bureau, to which all hospitals are now required by law to report. This plan of uniform hospital reporting proved to be of value not only to the hospitals but also to hospital contributors and to the public at large. It has been enlarged and improved by the welfare federation, to which all hospitals benefiting from the community fund now (since 1919) report monthly and annually and also submit annual budgets.

Through its legislative committee, an active interest has been taken by this organization in legislation. A paragraph from the 1917 report sets forth the principles which have governed its legislative activities and relations with local and state governmental departments:—

Modern hospitals are factors in public health work. As such, they are maintained by tax collected funds or by private philanthropy. While they exist primarily to prevent disease and to take care of the sick, they have certain other important functions. They are expected to afford opportunities for scientific study and research and to help educate and train both physicians and nurses. Along all of these lines they are expected to render satisfactory service to the public. Whether public or private, they are subject to certain rules and regulations and are bound by laws of supervision and control at the hands of the state. While they have certain obligations to meet, they have interests in common to protect. To meet these obligations and protect these interests, they have been slow to organize. In some states where there has been an opportunity to secure state aid, they have been well organized for this purpose. But it may be safely said that they have been lamentably weak in organizing to keep their superintendents and controlling officers informed through a central office of all legal matters and particularly legislation, local or state, affecting their financial interests and their public health responsibilities. This is a serious situation.

In 1917, the Hospital Council was requested by Governor James M. Cox to make a study of medical and hospital legislation in the state. An extensive survey was made and report published, with legislative recommendations. Several important measures were enacted as the result of this report—one centralizing all state authority as regards hospitals in the state department of health; the other creating a bureau of hospitals in that department with authority to define and classify hospitals and dispensaries and to require them to

register and make annual reports, as well as authority to license maternity hospitals. This legislation, so recommended, was based upon the principle which the Hospital Council has steadily advocated, namely: That the state should exercise a reasonable supervision over hospitals and dispensaries as public health organizations. State control it has always opposed.

A third measure of consequence, as recommended in the report to the governor and enacted into law after a lively legislative battle, definitely legalized the administering of anesthetics by a registered nurse under the direction of, and in the immediate presence of, a duly licensed and qualified physician. This proposal was based upon an exhaustive study of laws, official opinions and other data and information concerning medical practice and the administration of anesthetics obtained in all of the states in the union. Its passage was fought by a small clique of professional anesthetists interested primarily in "medical commercialism," some of whom have since tried to have the law repealed but without success. The nurse anesthetist is here to stay.

Other proposals recommended by the Hospital Council and enacted into law, include: removal of the \$200 limit paid by the industrial commission in any single case for complete medical and hospital attention; an act providing for public aid to private hospitals; an act authorizing corporations to make contributions to community funds and other charitable organizations. Effective opposition has been voiced to numerous legislative proposals believed to be inconsistent with the interests of the public. Every public health measure advocated by the Council has been enacted into law while every measure opposed has failed.

SOCIAL WORKERS ANNOUNCE PROGRAM

The American Association of Hospital Social Workers, which will hold its semi-annual meeting, May 16-23, at Washington, D. C., in connection with the National Conference on Social Work, has prepared its preliminary program. Miss M. Antoinette Cannon, president of the organization, at the opening morning session will give a review and forecast of hospital social service. The afternoon session of the first day will be given over to business affairs, with election of officers and district reports.

Other speakers who have been scheduled to appear are Miss Ruth V. Emerson of the Boston Dispensary; Miss Janet T. Thornton of the Committee on Dispensary Development, New York; Miss Edith Baker of Barnes Hospital, St. Louis; Dr. Frankwood W. Williams, director of the National Committee for Mental Hygiene; Dr. William Healey, director of the Judge Baker Foundation, Boston.

A report of a special study in New York will be made by Miss N. F. Cummings, secretary of the North Atlantic District; and a similar report of Boston by Miss Marie L. Donohoe, chief social worker, Boston State Hospital.

A trip to Baltimore will be taken on Wednesday.

THE STATE HOSPITAL AND ITS PHYSICAL PLANT*

ADAPTABILITY to the patient has been the keynote of general hospital planning and construction for a number of years. To make the institution serve the needs, comforts and well being of the patient has been the paramount object of architects, builders and administrators.

The general hospital has been recognizing how great a thing its physical plant is in the life of its patients, and architects have created the specialty of hospital planning and building. There are publications devoted to this particular subject. Administrators are putting their best thought into plant arrangement and economies.

Among state hospitals, adaptability to the patient has had slighted consideration. The effort too often has been to adapt the patient to the plant. Yet it is far more important that the state hospital plant be adapted to the inmate, because it is to become the home of many of those who enter its doors. Too little regard has been shown for permanency of residence, one of the big factors in state hospital life. The institution for nervous and mental cases, of all institutions for the sick and helpless, should be planned and built about the patient; the patient should not be warped into it, whether he fits it or not.

No Specialty in State Hospital Planning

For the plant to fit the patient, supply his wants and contribute to his comforts, it is not necessary that it be of any particular type or school of architecture. The congregate type can be made to serve the patient; the cottage type possibly serves him better with less effort, but, in building either type, the state has not been disposed to recognize the influence that the plant itself exerts upon the patient's well being.

Too much has been left to the architect, the politician and the gaudy vanity of the locality. There has been no specialty in state hospital architecture. Few architects have even attempted

In a discussion of the relative merits of plans for a state hospital plant, so far as the daily life of the patients is affected their attitude will be a correct guide. The place to study institutional plans is among the patients. The behavior of the insane is not always or entirely due to mental affliction, but much of it is chargeable to old human nature. Revolt against injustice in the institution is too often accepted as a manifestation of insanity. One of the most notorious injustices practiced upon the insane is to be found in the character of the housing to which many of them have been consigned. The institution for nervous and mental cases, of all institutions for the sick should be planned about the patient.

to study its architectural needs. Usually the state has an architect who is either a politician or receives his appointment through political influence, and he gets little encouragement from the state to delve into the special problems of the hospital. His tenure is likely to be short. When there is no state architect, the situation is even worse. In either event it is not often that an architect is selected who has even specialized in

general hospital planning. Whether it be of the congregate or the cottage type, the state hospital is a community, say of 1,000 patients and 200 or 300 employees, or perhaps 3,000 patients and 500 employees. City planning which is so vigorously studied now by American cities for the purpose of insuring proper development along harmonious and sane lines should appeal to the state hospital community; the need for state hospital planning is just as great and of the same general character. If the people of a normal community plan their business and public buildings and their homes so that the effect will be soothing and satisfying, how much more important is it that the home of a people of distraught mind should be given attention, to eliminate whatever may irritate and to create that which will make for pleasure and comfort of existence.

To work on, state hospital planners have not many ideas. As has been mentioned, there are two types of institutional plant for this class of sick, the congregate and the cottage. All state hospitals that are more than fifteen or twenty years of age are either wholly congregate or have developed about a congregate nucleus. In between the two there is a modification in which the cottage as a unit is large, three stories high and housing as many as 300 patients. Some states have adopted the simplest form of cottage, a small unit of one story, located flat on the ground without basement or attic.

A study of better standards of care and treatment for the mentally afflicted can not ignore the factor of the physical plant. The plant must be economical in its operation, not only in the interest of the taxpayer but in the interest of the

*This is the third of a series of articles on state institutions for the mentally ill which is being prepared under the direction of a special committee of the editorial board of THE MODERN HOSPITAL, in cooperation with the National Committee for Mental Hygiene and Mr. A. L. Bowen, former superintendent of charities of the department of public welfare of the state of Illinois.

patient. What may be saved on the fuel bill, through modern boiler house and heat distribution systems, may be applied to recreation, to new equipment in the sick wards, or to placing an additional man on the staff, so with all savings which may be made through application of approved methods.

Many Economies at Expense of Patient

But the process of economizing must end where the patient's rights begin. A congregate type of plant may be more economical to operate so far as the budget is concerned, but if the cottage system is more conducive to the happiness, comfort, contentment and stability of the inmates, then its additional cost should not be permitted to stand in its way.

In considering maintenance and development costs, there is one good rule to follow—the patient. Let him be the guide. There is no danger that too much will be done for him. In the expenditure of the funds available, no matter for what special purpose, the first and last thought should be the patient. He may be there to stay. The superintendent, the employe on the ward, the medical man, are temporary. The personnel is entitled to thought. The state should provide for its employes adequate and pleasant quarters, removed from the scene of their daily labors, but the institution should not be laid out and constructed for the avowed purpose of making their labors easier, if, in so doing, something is taken from the meager benefits of the patient.

Need Not Discard Old Buildings

Too much must not be charged against the plant. Manifestly it is more pleasant to work in new and modern buildings, but the old and out-of-date may not seriously stand in the way of the truth seeker. It is no uncommon thing to hear a superintendent excuse the lethargy of his institution by the assertion that the plant is old and antiquated. "No one can do anything with it," he says. Such a superintendent would have some excuse if he had the most modern plant in the world, for he is simply hunting defense for his own incapacity to deal with the situation.

It is possible to transform an old building into a delightful place in which to live. The average congregate institution was well built, and its structure will permit of changes. Light may be let in; the population of its wards may be decreased; the walls may be decorated; corridors, day rooms, dormitories and single rooms may be nicely furnished. If the building is not safe but is too good to abandon, it is feasible to build cottages sufficient to absorb the population living

above the second floor. Then the third, fourth and fifth floors may be converted into occupational classrooms, recreation centers, reading rooms, sewing rooms, and the like, to be occupied only during the day time by the more dependable patients. One of the best institutions in the writer's knowledge is of the congregate type, once the bane of a superintendent who could do nothing modern because the plant was so out of date. He made no effort. But another man was only handicapped; he overcame the handicaps and made a free and liberal use of the old building, removing the patients from the top floors and turning the abandoned living quarters into beehives of daily activity.

It has been a theory that certain types of patients require certain types of plan and construction. There is no objection to the theory except that it renders an institution immobile and fixes it too rigidly in one mold—something it seems desirable to avoid.

Patients Are Best Guide

In the discussion of the relative merits of two or more types of plant plan, so far as the daily life of the patients is affected, a correct guide is their attitude. What do they seem to like? What contributes to their peace of mind? What irritates them and makes them difficult? We are prone not to think about this, notwithstanding the general concession that environment is a big factor, not only in precipitating the individual's affliction, but in shaping his conduct within the institution. Odors, light, ventilation, distance from mother earth or close communion with her, all are little things which may be very important in the patient's daily routine.

It is academic and almost futile for superintendents, architects and others to discuss congregate and cottage institutions, one story, two story, or three story cottages, large or small, and all other phases of the subject, because they will reach no unanimous decision. The place to study institutional plans and to learn what is best is among the patients. How many have ever experimented along this line? The writer can illustrate his meaning by reference to a vivid experience in his own service.

In all his travels among the insane he had not found anything worse than "Old Relief," as one immense cottage at a certain state hospital was known. It was the house in which the most difficult of the 1,500 males in that institution were kept under the severest discipline. It was sinister in aspect; great frowning porches along the front shut out the light; there was a high basement which smelled to heaven and in it were the dining

rooms; adjoining was the bath room. The floor was rough; tables were covered with tattered and torn oil cloth. There were no two chairs alike; some had backs, some had three legs, some had legs worn down by constant scraping on the floors. On the first floor were three wards, all crowded. The plastering was off. There were no chairs, only benches along the walls.

One ward contained active, fighting, destroying men; the next, a demented crowd, tricky and quarrelsome; and the third a disordered and decaying group, frequently naked. All of them were idle all of the time. Toilet arrangements were abominable. Above were three dormitories, the beds so close together that patients might roll from one side of the room to the other without touching the floor. The authorities explained that it was humiliating but it was the best that could be done.

It was decided to rebuild the house. It was gutted until only the walls remained. The top floor was made into one immense, light, airy dormitory. The first floor was divided into two wards instead of three. Hard wood was laid and polished. The walls were plastered. New and modern plumbing was installed with terrazzo floors; urinals and stools separated by partitions were placed in the toilet rooms. Porches were re-

moved and light was let into both the basement and first floor. Enclosures were erected on the rear so that they did not interfere with light and ventilation. The walls were decorated; the stairs were made wide, open and nicely finished. The dining rooms became light, sweet and pleasant. New furniture was installed throughout. Meanwhile occupation had been found for a number of the agitated active men, either in shops, on the farms or in occupational therapy. When the new building was reoccupied, the transformation in conduct was remarkable. The place discarded its old evil reputation. Before, the men's conduct had conformed with the surroundings; when the surroundings were made human and good to look upon their conduct changed.

The behavior of the insane is not always or entirely due to mental affliction, but much of it is chargeable to old human nature. Revolt against injustice in the institution is too often accepted as a manifestation of insanity. One of the most notorious injustices practiced upon the insane is to be found in the character of the housing to which many of them have been consigned.

Standards in state hospitals must include this factor. It has a big place in the solution of the problem of care and treatment of nervous and mental diseases.

THE CLEVELAND COMMUNITY FUND*

BY CHARLES E. ADAMS, GENERAL CHAIRMAN, CLEVELAND COMMUNITY FUND, CLEVELAND, OHIO.

THE most conspicuous achievement in cooperative philanthropy and centrally planned social service work is represented by the Cleveland Community Fund, which, together with the Welfare Federation of Cleveland and the Federation of Jewish Charities, constitutes the famous Cleveland plan so widely copied elsewhere.

It would be wrong to assume that this tremendous undertaking now no longer an experiment, requiring over \$4,000,000 in annual contributions and combining local agencies with an aggregate annual expense budget of about \$8,000,000, came into existence without long and deliberate preliminary transition stages. In fact, the very strength of the present plan lies in its careful evolution.

It is interesting to note that the first example of cooperative giving and centralized planning in relation to philanthropic work was furnished by the Federation of Jewish Charities which is now in its twentieth year in Cleveland.

Early in the present century the Cleveland chamber of commerce found through a survey that the number of philanthropic agencies in Cleveland was rapidly increasing, and that the need for some form of wise direction of philanthropic expansion was indicated. There followed the creation by the chamber of commerce of the committee on benevolent associations which undertook on the one hand to endorse local philanthropic appeals found to be meritorious and, on the other hand, to advise the business public respecting those appeals found by the committee to be unjustified. The cooperation of the business public was secured to the extent that local agencies found the committee's endorsement almost indispensable to their success in soliciting funds for their work.

Under the procedure instituted by this committee, local benevolent associations appealing for funds to the general public of Cleveland submitted to the committee in due form their annual budgets and requested approval of these budgets and endorsement of their solicitation up to

*This is the second of a group of three articles evaluating the Community Chest.

the specified amounts. Approval of these budgets by the committee was followed by the issuance of an endorsement covering the agency's solicitation of the public, up to the amount of its annual contribution needs.

In due time, when the cooperation of the principal local agencies had been secured by this committee under the diplomatic and foresighted leadership of the late Mr. M. A. Marks, the plans were laid for the second step in the evolution of organized social service work. These plans led to the establishment of the Federation for Charity and Philanthropy consisting of a considerable majority of the local agencies not already combined in the Jewish Federation.

The new federation, in addition to laying the foundations for centralized planning and budget control, also undertook to secure from the public, contributions to cover the requirements of its member agencies. In this respect it met with an encouraging degree of success, although it did not remove the necessity of supplemental appeals by the agencies to the contributing public.

In 1917 the federation was merged with the Welfare Council, a voluntary advisory group of citizens previously appointed to advise with the department of public welfare of the city of Cleveland. The new organization was named the Welfare Federation of Cleveland.

The entry of the United States into the world war in 1917 with the resultant appeals to the public for voluntary contributions for war work and the Red Cross produced an important new factor in the situation. It was found possible, in fact necessary, to arrange for the financing of local philanthropic work out of the proceeds of certain of these war-time drives.

Furthermore, these drives necessitated the creation of a new form of organization known as the Cleveland War Council, supported by a campaign organization of unprecedented size and effectiveness.

Leaders in civic, business and philanthropic affairs became members of this organization, and their devotion, as well as their prestige and efficiency, produced commensurate results in the field of money raising.

With the coming of the armistice and the resultant disbanding of war-time organizations, there developed a strong sentiment in Cleveland, fostered by many business men prominent in the war council, favoring the perpetuation of the war chest as a peace-time project with a view to providing the operating requirements of local philanthropic agencies, and to meeting the continuing demands for European war relief.

The result was the establishment of the Cleve-

land Community Fund. The governing body of forty individuals represented respectively the War Council, the Welfare Federation, Federation of Jewish Charities, the city administration, and the chamber of commerce. The general chairman named was Mr. Samuel Mather, who, subsequent to retiring from this office, was made honorary chairman for life.

The first peace-time campaign of the Cleveland Community Fund was conducted in November, 1919. The campaign goal of \$3,425,000 was oversubscribed by over one-half million dollars. Since that time there have been three annual campaigns, all of which have met with substantial success.

The Community Fund is thus seen as having had a long period of evolution with a view to the ultimate accomplishment of two main purposes: first, the elimination of waste in philanthropy, and second, the enlistment of all citizens able to carry their share of cooperative financing of philanthropic work.

The present set-up may be interpreted as follows:

First, the Cleveland Community Fund as an organization representing the contributing public, aiming to insure the effective use of contributions entrusted to it.

Second, the Welfare and Jewish Federations respectively, representing practically all local agencies deriving support from the Community Fund.

To these two federations the Community Fund delegates the detailed planning and coordinating of social service work. The Fund, however, bears in mind its responsibility to its contributors to take care that this work is well and adequately performed.

The results of the establishment of the Community Fund have been even more far-reaching than was generally anticipated. The Fund has secured the generous cooperation of the contributing public. It has never experienced difficulty in recruiting team workers for each annual campaign, to the number at the present time of over 5,000. Newspaper support has been equally generous, as has also the support of the principal sectarian groups. In fact, there has been noted a growing tendency toward removal of sectarian lines and increased cooperation between religious sects which is regarded as extremely significant.

To the business public, representing the principal volume of contributions, the creation of the Community Fund has meant the elimination of philanthropic waste to a very high degree—waste as represented in commissions to solicitors, time lost in interviews with solicitors from various agencies, money lost through duplication of ac-

tivities, and through the lack of centralized budget study. All these things are true, notwithstanding the marked increase in the volume of philanthropic giving which Cleveland has experienced under the Community Fund. The community is fully reconciled to this increase, since it has become thoroughly "sold" as to the beneficial effects of an adequate social service program. A street beggar in Cleveland is, at the present time, rarely seen. There are many other evidences obtainable from statistics on health, dependency and delinquency which prove the favorable results of Cleveland's tremendous social service program.

In presenting this picture, it is necessary to emphasize the essential character of the work now performed by the two local federations. They are at the present time indispensable to the smooth running of the plan, as they provide the detailed scrutiny of local activities necessary to efficient philanthropy. In short, the federation of finance and the federation of service are coordinated.

Budget control in relation to local agencies is mainly applied by the two federations dealing with their respective memberships. The budget machinery of the Welfare Federation, by reason of its size, (comprising 96 local agencies) is more detailed than that of the Jewish Federation. The principal activity of the budget committee of the Welfare Federation occurs in midsummer each year, at which time the constituent agencies submit their budgets for the following calendar year. The budget committee is subdivided into several groups according to types of service rendered. Thus there is a relief agency subcommittee, a hospital subcommittee, a recreation subcommittee, while the children's agencies and homes for the aged have their respective subcommittees. Each subcommittee receives budgets of its appropriate agencies and confers with representatives of each agency in turn with a view to agreeing upon a budget. As soon as all the subcommittees have completed their work, their reports are submitted to the budget executive committee of the Welfare Federation where the needs are considered as a whole in the light of current financial conditions. The recommendations of the budget executive committee are then submitted to the executive committee of the Federation and thence to the Federations board of trustees. They next reach the investigating committee of the Community Fund which also receives the recommended budget of the Jewish Federation and makes a general study of all other items for inclusion in the Community Fund budget. Opportunity is afforded for the Community Fund to exercise veto power if it so desires as to any budget items. In this connection, however, by reason of the form of the

Community Fund Council, comprising representation from each of the Federations, no important disagreements have arisen.

Recommendations of the investigating committee, after review by the Fund's executive committee, are submitted to the Council, which accordingly approves or amends the budget of the Community Fund for the ensuing calendar year. This budget forms the basis for the annual campaign conducted in November which, by tradition, covers the eight-day period ending the Monday before Thanksgiving.

Preparing for Annual Campaign

The annual campaign is in charge of a campaign committee annually appointed by the general chairman. Fund regulations provide that not less than seven members of this committee should be members of the Community Fund Council. Beyond this number members may be selected without regard to Council membership. The campaign committee, headed by the campaign chairman, is composed of certain members at large and of the heads of all important sub-divisions of the campaign organization. According to present practice the campaign committee functions mainly through these subdivisions and has general meetings only during the intensive preparation period.

Preparations for the annual campaign are an important factor of the year-round work of the permanent staff which studies campaign methods, cultivates new prospects and generally lays the ground work for the campaign well in advance.

The campaign organization covers the various fields of, first, solicitation of pledges, second, publicity through all forms of contact with the public and, third, campaign routine such as supplies, transportation, records.

The most important campaign unit is Division "A" of the soliciting organization, comprising forty teams of prominent business and professional men with an aggregate membership of about 500, having as its function the solicitation of approximately 20,000 Cleveland individuals and firms representing the larger prospective givers. This division annually accounts for about 80 per cent of the campaign receipts, or in the neighborhood of \$3,500,000. Its team members are supplied with prospect cards with name and address of each prospect to be solicited and showing the anticipated amount to be pledged. All team workers in this division attend daily luncheon meetings during the campaign, at which results are checked up and campaign enthusiasm is generated.

Division "B" represents the neighborhood soliciting organization, with a personnel of approximately 3,000, organized according to city

wards and suburban districts. The organization in each ward canvasses prospects having their residence or business address there. The personnel of this division comprises men and women, many teams being organized by various civic groups desiring to aid the campaign. This division in the recent campaign produced approximately \$300,000 in pledges.

Division "C," otherwise called the industrial division, covers all factories, offices and stores having ten or more employees. In each of these establishments the division secures the appointment of a keyman who supervises the solicitation of all the employees of the company and renders his report to the division. The division operates through twenty teams of ten members each, each member being responsible for the progress of the campaign in an average of ten establishments. The function of each team member accordingly is to keep contact with his keymen and make certain that they are equipped for their tasks.

In the November, 1922 campaign this division was successful in securing the cooperation of 1,450 local business concerns with a total of 155,000 employees contributors, aggregating \$530,000 in pledges.

Reference should be made to the schools division, cooperating with Division "B," having as its function the conduct of the campaign in all schools in Greater Cleveland. This division secured contributions up to 10c (maximum) from approximately 175,000 school children last fall, and from a large proportion of teachers in the schools. The financial results of this division's work are consolidated with the figure given above for Division "B."

Campaign publicity has several important branches, consisting of (a) newspaper advertising, news stories, feature articles; (b) speakers' bureau furnishing speakers to address meetings wherever the subject of the Community Fund is to be presented; (c) motion picture films; (d) street signs and posters; (e) store window exhibits of the work of the Community Fund agencies. These headings are sufficiently descriptive without elaboration. In brief, the campaign publicity aims to sell the idea of the Community Fund through the spoken and written word and through visual presentation of the activities supported by the Fund.

In reference to the matter of campaign routine, there are of course provisions for purchasing and distributing of campaign supplies and for the maintenance of proper campaign records. These subjects would require a great deal of space to describe completely, but this is not required here.

Prominent factors in the success of the four an-

nual campaigns of the Cleveland Community Fund thus far held are (a) the whole-hearted support of the movement by successful and influential men and women of this community, (b) excellent newspaper support, (c) leadership given to the Community Fund by outstanding Cleveland citizens, (d) community-wide interest in the activities supported by the Community Fund.

The Community Fund is locally regarded as having an excellent effect upon the life of the community. It brings together all classes and creeds without discrimination and unites them in a common purpose on a scale duplicated by no other existing cause. The people of Cleveland are alert to defend the Community Fund; they are interested in its activities; they are doing their best to make it a permanent Cleveland institution.

5,000 HOSPITALS TO OBSERVE MAY 12

Inquiries from Medicine Hat, Alta., and from Miami, Fla., in the same mail; requests for 300 copies of suggestions for a program to be distributed to every hospital in a state by the director of the state hospital bureau; copies of a pamphlet which was sent to 700 hospitals in three states by the secretary of a hospital association; an inquiry from an Eastern mayor for six copies of suggestions for a program for six municipal hospitals—these are typical of the daily flow of correspondence into the office of Matthew O. Foley, 537 South Dearborn street, Chicago, executive secretary of the National Hospital Day Committee, as thousands of hospitals throughout the United States and Canada prepare for the observance of third annual National Hospital Day on May 12.

A letter of commendation to E. S. Gilmore, superintendent, Wesley Memorial Hospital, Chicago, chairman of the National Hospital Day Committee, from the Prince of Wales; reports of meetings of hospital groups in dozens of cities throughout the United States; announcements of plans for broadcasting National Hospital Day announcements; a letter from a manufacturer of uniforms telling of his asking 2,000 department stores throughout the country to reserve space in their windows for a National Hospital Day display; these and many more are the preparations being made for the occasion.

The hope that some 5,000 hospitals of the United States and Canada will join in the observance of National Hospital Day this year, as expressed by the national committee seem near to fulfillment, and every hospital which has communicated with the committee has indicated that it has plans laid for a pretentious program. Graduation exercises for nurses, baby shows, pageants, public meetings, luncheons, exhibitions of various departments and similar features form the general character of the programs for the big day.

One of the gratifying features of the 1923 preparations has been the wholehearted and active cooperation given the committee, not only by various state and sectional associations, but by the national groups, including the denominational organizations. In several cases these associations have printed special literature and distributed it among their members, strongly urging extensive programs.

The remarkable success of the National Hospital Day movement, still less than two years old, has been due first of all to the ready recognition of the importance of improving relations between the public and the hospitals.



The MODERN HOSPITAL

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LOOK TO YOUR LEGAL FOUNDATIONS

SOME time ago an action was brought in the courts of Utah by one Getzhoffen, against the Sisters of the Holy Cross Hospital to recover damages for injuries which he alleged he sustained while a patient in the hospital.

It was stipulated that the Holy Cross Hospital was a corporation organized under the laws of Indiana, and that it was doing business in Utah for profit. While in the course of the trial it was shown that the hospital was conducted as a charitable institution and in no sense for profit, the charter of the hospital, brought in evidence, clearly provided for capital stock, one of the earmarks of a business corporation. Consequently, the court in rendering its decision stated that "the articles upon their face purport to create an organization for pecuniary profit. It has been quite generally held that the nature of the corporation must be determined from its articles of association and that its character cannot be changed or modified by parol evidence; that the object and purpose for which a corporation is organized must be gathered alone from the written instruments and cannot be aided or varied or contradicted by testimony outside of the instrument itself."

In a similar case in Minnesota the articles of incorporation of a hospital provided for capital stock. This, however, was never issued, the corporation depending for support almost wholly upon contributions. The court ruled that the character of the corporation must be determined solely from its articles of association and that its character cannot be changed or modified by evidence that it was not in fact such a corporation.

Inasmuch as charitable hospitals, as pointed out by Mr. John A. Lapp in a paper which he read on "The Liability of the Hospital for the Acts of Its Servants" at the March meeting in Chicago of the Congress on Medical Education, Licensure, Public Health and Hospitals, have a large immunity from the risk of negligence, it would be well for all such hospitals to look to their legal foundations lest they fall into the pitfall of the Sisters of the Holy Cross Hospital. It is especially important that hospitals that have passed from the proprietary into the public service class should be careful to see that their articles of incorporation no longer retain any of the evidences of a profit-making organization. For while decisions of the court are numerous, one of the almost universal conclusions is that the form of the corporation, rather than the character of the work done in the institution, largely determines the classification of the hospital. If therefore its articles of association carry any of the earmarks of a business corporation, the hospital will be regarded by the

court as a corporation organized for profit, even though it has never made a cent and its works of charity are known on every hand.

COULD THIS OCCUR IN YOUR HOSPITAL?

A HOSPITAL of moderate size in a mid-western city, a few years ago, added a new pavilion to house its operating suite, its x-ray department, its laboratories for bacteriological, pathological and bio-chemical work and its surgical and maternity services.

The construction of a pavilion of this highly specialized type involved the installation of a large and varied amount of fixed equipment, by no means the least of which were the various kinds of piping—water, steam and waste. This piping installation, if it was to be done efficiently, necessitated the intelligent determination of a number of important questions, as for example: Is the nature of the water supplied the institution such that galvanized wrought iron or galvanized mild steel will serve for the water supply piping? Should the piping leading from the hot water heaters be brass or wrought iron, or the shell of the heaters cast iron or steel, Since free oxygen attaches standard steel piping, would it not be better to install wrought iron or brass piping in the steam heating system? Shall extra heavy cast iron or vitrified non-porous stoneware be used for the waste piping leading from the laboratories and how shall this be arranged to minimize the destructive action of acid wastes? Shall the intermediate pressure in steam lines leading to the sterilizers consist of brass or wrought iron?

But unlike some superintendents of whom we know, the superintendent of this hospital, upon whom the board of trustees relied with an unwarranted faith, knew little and cared less about the kind and quality of piping that was installed in the hospital's new pavilion. He was too busy with what he conceived to be more important duties to concern himself with so prosaic a subject as piping. He was altogether willing to leave the selection, arrangement and method of installation of this exceedingly important line of equipment entirely to the architects, whose knowledge of piping in its relation to hospitals was in this instance embarrassingly small. Moreover, the hospital had only a limited amount of money to put into the new building. Why install expensive piping when cheaper grades would do just as well? Accordingly cheaper grades were installed.

But after a few years went by, corrosion accomplished its inevitable task. The then superintendent fell upon unhappy days. Leak after leak sprang in pipes that should have stood up

for another generation; indeed, throughout the life of the building itself. Ceiling after ceiling fell, or carried unsightly stains. One day found the institution hampered by a lack of adequate water; another day by a lack of adequate heat. There was never-ending trouble, and largely because one hospital superintendent knew little and cared less about piping.

We have different and encouraging pictures in the superintendent who spent days with his engineer and the architects in checking back the details of the piping equipment of his new nurses' home, in order to assure himself that his institution installed the best piping there was to be had for this purpose, and in the hospital which had a special committee, consisting of the architect, a consulting sanitary engineer, a member of the board of trustees and the superintendent, appointed for the sole purpose of selecting for its new pavilion the very best rust-proof piping possible.

Surely the superintendent of today is under a moral obligation to so inform himself about the role which not only good piping, but all well-made fixed equipment, plays in the successful and economical administration of his hospital.

THE ODORLESS HOSPITAL

"IN THE dark-backward and abysm of time" when every practitioner of medicine wore a Prince Albert, a mussed silk hat and a Van Dyke beard, it was no uncommon thing for some naive layman to remark, "I knew you were a doctor the minute I smelled you." Those were the days when wounds were exorcised of the demons of infection by carbolic acid and iodoform, and since "smells are surer than sounds or sights to make the heart-string crack," our memories are sometimes deeply stirred by the aromas of those drugs no less than by more pleasant odors. The scent of dust after rain recalls vividly some childhood scene; the perfume of the lilacs brings back that spring evening when the fateful proposal was made; a whiff of chloroform makes live again that painful hour before the tip-toeing nurse announced that it was a boy; and the pungency of ether revives the awful suspense before the surgeon removed those shell-fragments from that same boy. Yes, the whole history of our lives might be made to pass in review by the stimulation of our olfactory sense.

Haller in 1763 classified smells as agreeable, intermediate and disagreeable, and years later Swaardemaker proposed his olfactometer for measuring the degree of smells. Recently osmics, the science of the stimuli, organs and the sense of smell, has taken its place in the field of knowledge, the substances which give off odors being christ-

ened osmyls while the organs which receive and translate these stimuli have been dubbed osphrenes. We have traveled far since the Anglo-Saxons coined their verb to smell, "stenc, stincan," from which we have our vulgar yet forceful verb, to stink, now unfortunately banished from polite social usage. Yet there is no paucity of vocabulary to express the idea.

In justice, it must be said that the men and women who are administering our hospitals today have consciously and unconsciously labored to reduce hospital odors, that collective group of smells which quicken the painful memories of many persons. The advances in hospital architecture and ventilation, no less than the discarding of the superstition that stink means strength in disinfectants and drugs, have contributed to render less disagreeable the atmosphere of hospitals; but it is doubtful if these smells have been brought down to an irreducible minimum.

The importance of odors in the environment of well people is very great. Many of them produce a sense of oppression, of fatigue, of headache, and the physical deterioration of many trades may in part be traced to this fact. How much more important it is that sick people whose bodily or mental mechanism is already below par be kept in as odorless an atmosphere as possible. Who can forget the sour, disagreeable smell which used to exist in the wards for the tuberculous, or the mousy smell of the long rows of typhoid fever patients, mingled with the aroma of the turpentine in the floor-wax and the resinous emanations from the yellow soap used in laundering the bed linen. The wax and the soap were supposed to have "clean" smells because they recalled polished floors and things scrubbed; beef stew was supposed to have a "strengthening" smell because of the memories of the piece of neck from which it was made, and the intern's gown, redolent of ether announced to all that he was a budding surgeon.

In the administration of hospitals it is wise to leave out of the environment as many smelly things as possible, to require that the personnel shall not come into contact with patients, redolent of tobacco or the odors of diet kitchen or operating room. It might be wise even to admit only the odorless flowers; certainly those whose perfume makes the patient think of a funeral should be excluded. Good ventilation and provision for the rapid removal of odors should be provided and the mistake of attempting to "deodorize" one odor with another should be avoided. Above all, the entire hospital force should be indoctrinated with the idea that the odoriferous hospital is a sphacelus to be cast off and replaced by healthy odorless tissue.

A GIFT FOR NURSING EDUCATION

WORD comes to us just as we go to press that Mrs. Chester C. Bolton of Cleveland has notified the nursing council of the associated hospitals and medical school group of Western Reserve University of her readiness to contribute one-half of the million dollar fund needed for the establishment of an endowed university school of nursing in Cleveland. This is the third outstanding gift of which we know for nursing education. The first was a gift of \$200,000 from Florence Nightingale to the first school of nursing. This money represented the gift of the English people to Florence Nightingale on her return from the Crimea, and her realization of the need for the endowment of nursing schools. The second was a gift from Mrs. Helen Hartley Jenkins to endow the department of nursing and health in Teachers' College, New York.

The significance of Mrs. Bolton's gift is enhanced by the fact that it is a gift made by a woman for the education of women who wish to enter a profession. Those who are acquainted with the nursing field know that Mrs. Bolton has been studying the aims and ideals of this profession for years, and this gift is an evidence of her conviction of the important relationship which the preparation of the nurse bears to her service.

The gift has further significance in that it follows hard on the heels of the publication of the long looked-for report of the committee on nursing and nursing education in the United States, the gist of which will be found in Miss Mary C. Wheeler's summarization on page 415 of this issue, under the caption "Rockefeller Report Pictures Ideal Training School for Nurses."

That Cleveland offers an ideal environment for the development of such a school will be conceded by all who are familiar with the splendid civic consciousness of that city. Additional considerations that point to the success of this venture are the progressive attitude of the trustees of Western Reserve University, and particularly of the college for women, evinced in the establishment of the university's department of nursing education in 1921, the liberal response of the outstanding members of the medical profession of the city in their approval of the projected plan, the marked cooperation that exists between Lakeside Hospital, the Babies' Hospital and the Maternity Hospital, and the warm response of the principals of their schools of nursing.

This gift places Cleveland first of a number of cities that are attempting to raise funds for university schools of nursing, a position of which it may indeed be proud.

FIVE PRIZE-WINNING PLANS IN SMALL GENERAL HOSPITAL CONTEST

FIVE methods of solving the problem of small hospital construction are shown in the following pages, in the reproduction, description and critical analysis of the designs which won prizes and honorable mention in THE MODERN HOSPITAL'S \$1,000 international architectural competition recently closed.

The publication of these five plans marks the first step in a concerted and serious study of small hospital architecture made in any nation, and it is undoubtedly destined to influence small hospital design and to stimulate further study.

Awards in this contest went to Butler & Rodman of New York City, John J. Roth of Los Angeles and Ernest C. Hoedtke of Cambridge, Mass., respectively. Honorable mention was made of the designs of Cervin & Horn of Rock Island, Ill., and Prof. Lemuel Cross Dillenback of the University of Illinois school of architecture.

A complete report of the jury of award in the competition is given. The jury, which was composed of Dr. S. S. Goldwater of New York, Clarence H. Johnston of St. Paul, William Buck Stratton of Detroit, Asa S. Bacon of Chicago and Miss Adelaide M. Lewis of Kewanee, Ill., met in Chicago on March 5-7, selected the five designs they judged most meritorious and drew up their report. Eighteen other plans of interest will be published in the June, July and August issues. The report of the judges follows:

Report of Jury of Award

The fifty-one sets of plans which were offered for the consideration of the jury were first examined, for the purpose of determining their eligibility, by Mr. Carl A. Erikson, acting for Mr. Richard E. Schmidt, architectural adviser, whose attendance was prevented by serious illness.

Mr. Erikson reported that, with one or two exceptions relating to trivial details, the contestants had complied with the terms of the competition.

Before proceeding to a consideration of the plans the jury adopted a system of grading which provided for the analysis of each plan submitted, from the standpoint of (a) economy of construction, (b) efficiency of operation, (c) merit of design and integrity of presentation, (d) health values, (e) flexibility. To the elements of economy of construction and efficiency of operation sixty out of a total of 100 points were allotted.

The first inspection of the plans disclosed a number of schemes which, while highly meritorious as hospital plans, were regarded by the committee as pre-eminently suited to large and middle-sized hospitals. Inasmuch as the major purposes of the competition had been declared to be "(a) to stimulate the building of small hospitals that are efficiently arranged, suitable for smaller communities, as well as architecturally creditable; and (b) to bring to the trustees of small hospitals floor plans that shall combine simplicity of design and good taste with a compact arrangement of the various departments of the hospital now regarded as essential to the efficient, scientific care and treatment of the sick," elaborate schemes lacking in compactness and simplicity of arrangement could not be regarded by the jury as entitled to favorable consideration.

The designs submitted exhibited wide variations of merit; a few in fact seemed quite devoid of merit but no plan was eliminated on this score alone, for it was conceivable that the hospital field might profit by the publication of an interesting and meritorious floor plan even though the accompanying design was poorly rendered.

A number of otherwise interesting plans failed to command approval because the working, and especially the nursing units, were put together in a manner that would have compelled the employment of an unusually large force of nurses and other workers.

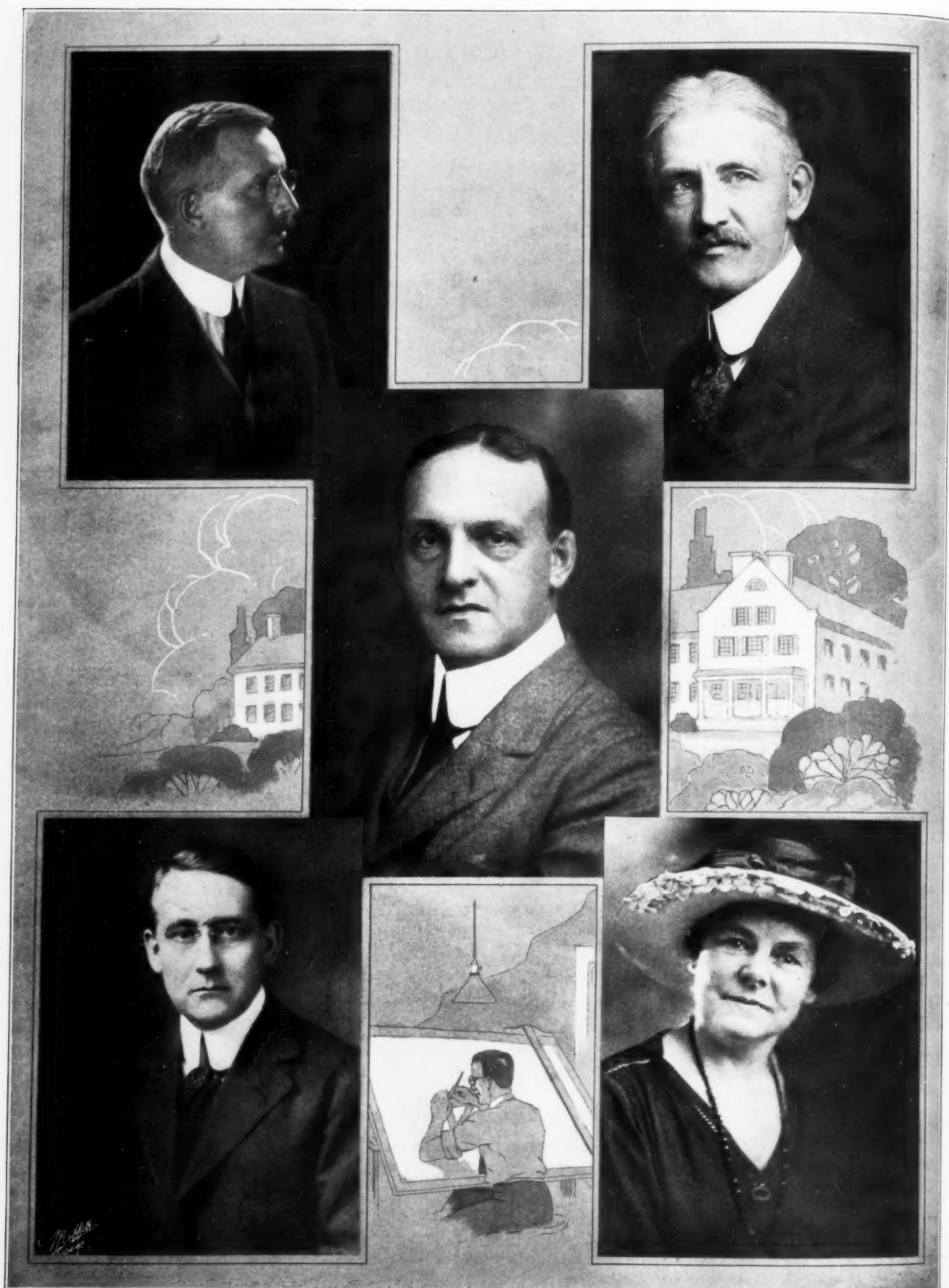
The committee devoted the last day of its deliberations to the systematic re-consideration of the eleven plans which had received the highest rating; it was from this group that the prize plans were selected.

A critical analysis of the individual plans, including a brief statement of some of the considerations that influenced the jury in its decisions, follows:

First Prize Design

The first prize design solves the problem of the general hospital for a small community in a simple and direct way, making for economy of construction. The design while somewhat meager in its elements, is altogether appropriate and satisfactory, and has little of the institutional look. The general shape of the building and the pleasant skyline should give, with well chosen mate-

JUDGES WHO SELECTED FIVE PRIZE PLANS OF SMALL HOSPITAL



Above, Architects William B. Stratton and Clarence H. Johnston; center, Dr. S. S. Goldwater; below, Superintendents Asa S. Bacon and Adelaide M. Lewis

rials, a very satisfactory effect. The construction is very simple and economical and indicates the use of materials and workmanship easily procurable in almost any locality. Windows are the practical, conventional hospital type, with transoms. The resulting severity is relieved by the very simple treatment of the arched panels. The problem of choice of location has been appreciated by the designers who have chosen a sunny hillside site.

The interior arrangement of this building can be easily understood and is well adapted to its various functions. Each department can be approached without disturbing the activities in any other department. Visitors, out-patients, ambulance cases and tradespeople are taken care of directly. The kitchen and other important service portions are, on the whole, well arranged and occupy well lighted rooms above grade. Were it at all possible, it would have been desirable, however, to have located the laundry nearer the boiler room, thereby removing the objectionable noise of machinery under the wards and obviating the necessity of a long run of pipes. The elevators and stairways, the ambulance and supply approaches and various work rooms are so placed that their use will not disturb the patients. This can also be said of the emergency, receiving and general operating rooms.

The nursing and housekeeping arrangements of the upper floor are well located and, being simply arranged on each floor, tend to prevent confusion in service. It would be well, however, to consider changing the position of the nurses' stations to provide an easier command of all the corridors. Two nursing units make possible a minimum nursing service.

The maternity and children's departments, while having ample sunlight, are well separated from other patients. In the maternity department, however, the room for the incubator which cuts out light and ventilation from one end of the corridor should be eliminated and the incubator placed in the nursery where it will be under the eye of the nurse.

The patients' rooms are all placed with sunny exposure, and are of various sizes and appointments, so that an ample variety of service may be given. The porches are well placed for the fullest use of sunshine and air.

The possibility of extension or enlargement is fairly good. It is believed, however, that future extension should be to the west rather than to the south, since it is felt that extension in this direction might easily throw the whole scheme out of balance.

There are a few other minor details that might

be changed to advantage, but on the whole this plan presents a solution of the small hospital problem with a degree of intelligence somewhat rare, and in the judgment of the committee is fairly entitled to the first prize.

Second Prize Design

The second prize plan also represents a type very suitable for the small community. The exterior is simple, pleasing and very beautifully rendered. In economy of construction it meets the conditions well, although simplification could be made without injury to the plan. The location of departments is made with intelligence and makes for efficiency of operation and economy in nursing service. The patients in general are well provided with sunlight. Certain sections of the basement, however, are poorly lighted and ventilated. This is especially true of the laundry and its accessory rooms, the sorting room and the clean linen room, as well as of the drug and several storage rooms. In the basement, moreover, all the corridors are blocked from light and air.

It is, of course, unfortunate that access to the sterilizing room can be had only through the operating room. There are other minor defects in the plan that subject it to criticism, but which on further study could easily be corrected.

The design of the exterior is unique and refreshing, in that attention is given to form and color to an unusual degree. Undoubtedly it would be a distinctive building if erected in a proper environment; while the future wings shown on the plot plan may not be placed to the best advantage, the plan readily lends itself to extension.

Third Prize Design

The third prize design is a very excellent plan although somewhat more ambitious and expensive than the competition warrants. The general construction of the building is simple but it is perhaps a bit too severe and institutional in its handling, and the central tower seems out of proportion to the rest of the building and an unnecessarily expensive feature. The relation of the departments one to another is good, and efficiency of operation was given careful study by the competitor. Patients are well taken care of in sunny rooms, with ample porch space. The nursing and medical functions are well handled. It is apparent from the refinements of detail shown on the drawing that the designer would be capable of making a thoroughly interesting design of this building if he were to give it more study. The plan lends itself very well to enlargement, by additions to the west wing. The competitor's pre-

sentation of the problem is one of the best and would have been entitled to a higher rating had the design been given more study from an architectural point of view, and had it more thoroughly embodied the idea of a small compact institution.

First Honorable Mention Plan

The plan which received the first honorable mention is so excellent that in the opinion of some of the jurors it should have been one of the prize designs. It is very pleasing and well shown, but in the opinion of the jury is more complicated than the problem calls for.

The L-shaped plan is economical in construction and efficient in operation. It readily lends itself to enlargement but in the opinion of the jury the designer made a mistake in not providing for future expansion to the south, rather than to the north. The building, as planned, might better be placed further north on the lot and extended to the south to form a T-shaped building, with central operating units commanding all three corridors, thereby obviating the establishment of a second nursing unit which would be necessary in the U-shaped building shown by the designer.

The southerly rooms to the rear wing are largely used for special hospital services, rather than for patients, and projection of this wing across the south tends to shade several patients' rooms. The plan, moreover, is not altogether convincing as to service arrangement in the basement. The corridors of the basement are shut in at the end and do not allow for sufficient light and air. Adequate porches too are lacking.

Minor criticisms as to the design of the building, glass areas for windows throughout and several other features, such as the distance of the nursery from the maternity ward places this unusually satisfactory building in the judgment of the jury outside the prize winners.

Second Honorable Mention Plan

The design of the building given second honorable mention presents an interesting type. The designer chose to present his scheme largely as a

one floor development, with the administrative, service and operating section in a two story center. The scheme is interesting in a variety of ways, but covers too much space, requiring extra utility and pantry rooms. For a hospital of this size the distances for the nurses to travel are too great. The patients are very pleasantly situated. For a hospital of this type the nursing and other service stations are well placed to handle the wings. The kitchen department is original in its conception and workable.

The placing of the operating and maternity groups on the second floor, while excellent in itself, adds to the nursing requirements; furthermore, it necessitates the additional expense of the installation and maintenance of an elevator and stairway, the saving of which is an important argument for the one story plan. With the exception of the laundry, the basement is very poorly lighted and ventilated and the provision in the attic for housing male and female help is unsatisfactory.

If a community possessed an extensive property for this building, ample funds for its support and the desire of the part of the promoters to produce a hospital design for the patients only, regardless of other factors in the hospital problem, this design would be most worthy and subject to high approval.

Conditions Limited Contestants

While experience has demonstrated the need of laying down conditions in a contest of this sort, it is the opinion of some of the members of the jury that in the present instance, the completeness of the instructions given probably operated as a check on the imagination and inventiveness of those who took part in the competition, and that under freer conditions greater novelty of design and arrangement might have been displayed; but on this point it is difficult to obtain perfect unanimity of opinion.

It seems proper finally to add that the jury's award was made without knowledge on the part of any member of the jury of the authorship of any of the plans submitted.

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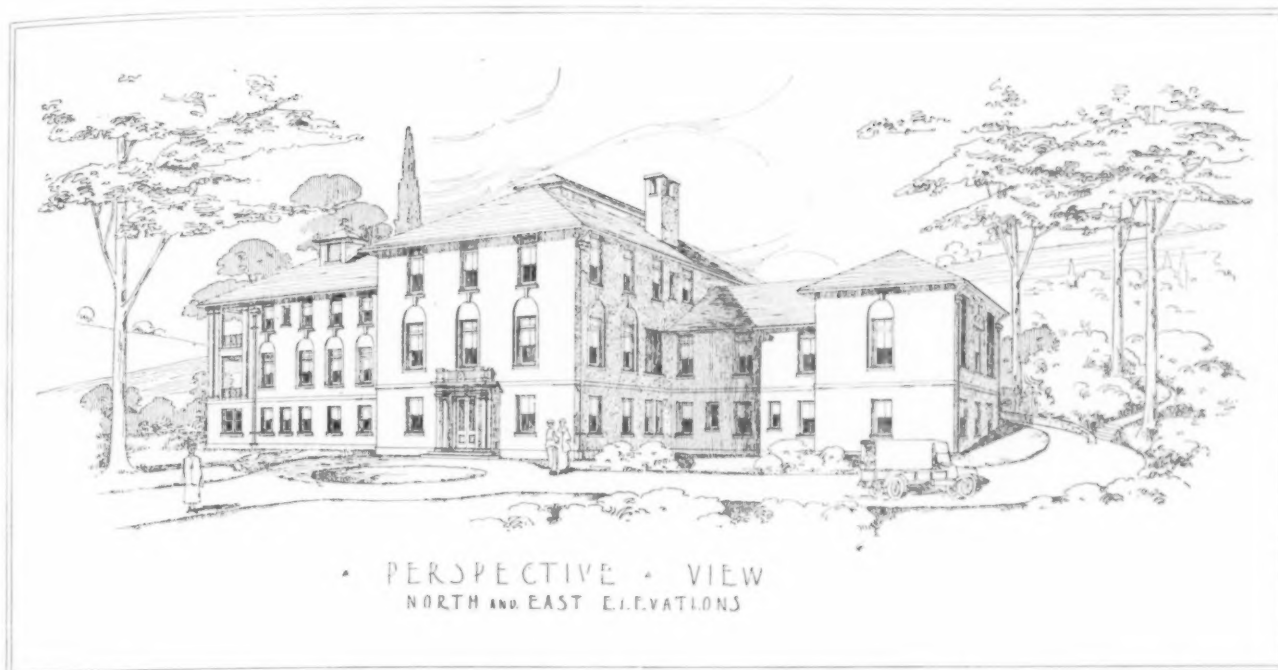
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First prize went to Butler & Rodman of New York whose design, the perspective of which is shown above, is simple and economical of construction.

A SIMPLE SOLUTION OF THE SMALL GENERAL HOSPITAL PROBLEM

AS IN any architectural design, so even more in the case of a hospital is it essential, first of all, to work out a plan which shall satisfy the needs set forth in the program. I have never forgotten the remark made to me by a great French architect: "On a good plan you can make forty good elevations, but first you must have the good plan, and on a bad plan no good elevation is possible." This is a precept too often neglected by architects who start out with the idea of a beautiful exterior and forget that it can only proceed from a good plan.

In studying the plan we were at first tempted by a solution along the lines of tuberculosis sanatoriums in which every room would face the south. The large number of single rooms and the small size of the wards seemed to point to this arrangement which would be most attractive from the point of view of the patients, but it soon became apparent that the great length of the building from east to west would increase the labor of the nurses beyond all reason, while minor objections were the excessive length of heating and plumbing lines; so we abandoned the idea in favor of the plan adopted, in which every patient's room has east, west or south exposure.

This plan appeared to us especially economical in that it permitted the central location of stairs, elevators and service rooms, and still provided for the segregation of the

different departments, and allowed for future expansion in three directions.

We assumed that the hospital was to be built in a climate where protection from cold winds should be considered, and therefore selected a site on ground rising gradually toward the northwest. This permitted us to place the business, admitting and out-patient sections of the hospital in the basement on the east, while the slope permits of access to the ambulance entrance on the main floor level. We felt also that it was desirable to place the entrance away from the operating rooms, so that the incoming patient need not be greeted by the blank stare of operating room windows.

The placing of kitchen and laundry was also a difficult problem. In a larger hospital these services may easily be removed from the hospital proper, but when that is impossible for reasons of economy, as in this case, it reduces itself to the question of what are the least objectionable locations.

Of all the patients, the children would be least annoyed by the noise of the kitchen, so it has been placed under the children's ward, and for a similar reason we placed the laundry under the main airing balcony, where its presence would be least noted. Other points in plan arrangement which appeared to us worth while are the

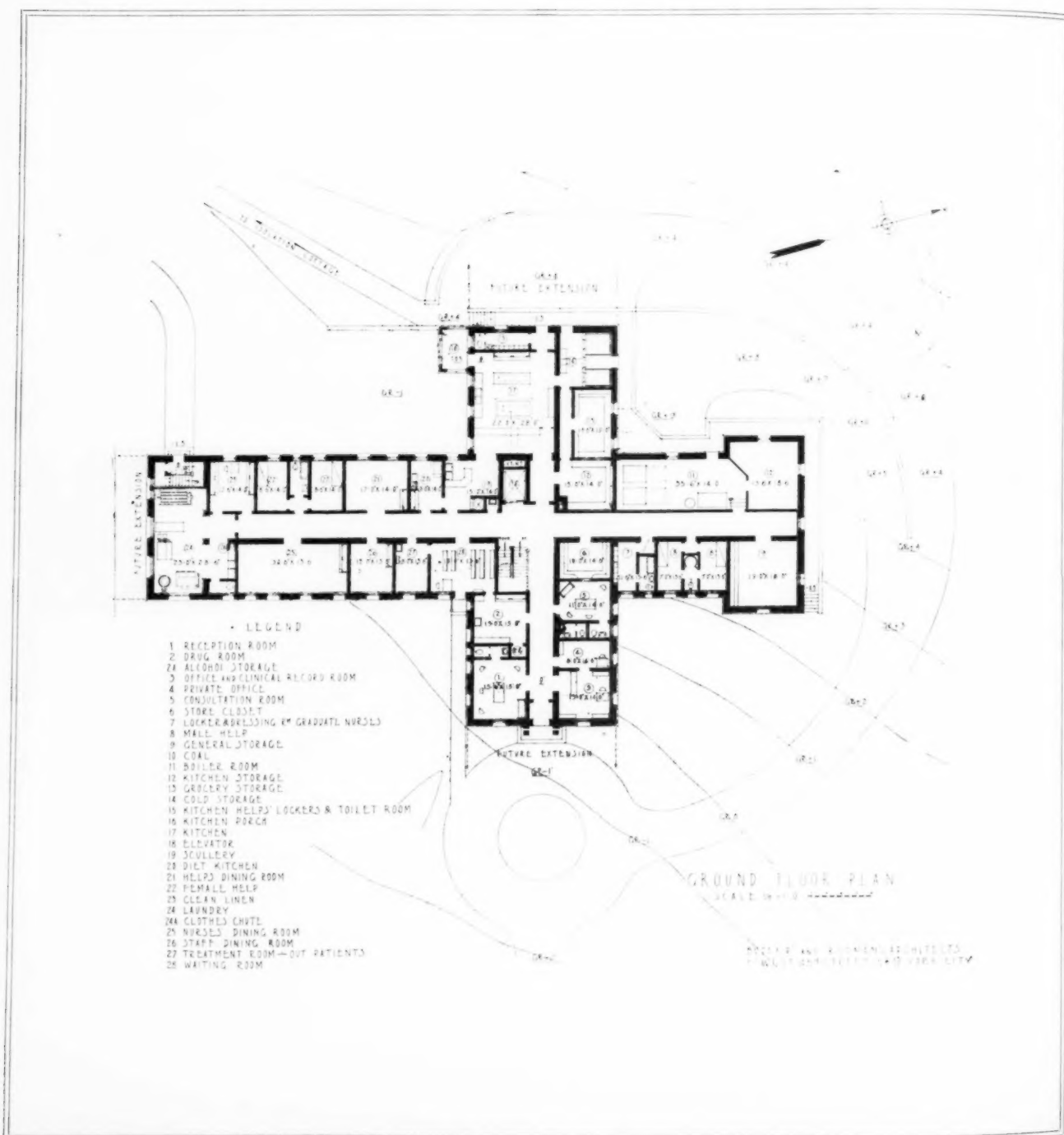
placing of the ambulance entrance out of sight of the patients, and the placing of the x-ray service and laboratory near to the operating department.

Our design for the exterior provides for stucco on brick or concrete walls with roof of tile or slate. The number of beds called for would imply that the hospital was to be designed for a town of approximately ten thousand inhabitants, where a plot of ground of ample size would certainly be available, and we felt that a cream colored building with green window trim and a red or green roof, surrounded by lawns, with trees and shrubbery would be an addition to the beauty of the town. The modified colonial architecture adopted for this design seemed to lend itself to the exacting requirements of the hospital

plan and to produce the most agreeable exterior at least expense.

We believe that this design would be reasonable in cost in view of the fact that all spans of girders and beams are relatively short; it will be noted that one of the corridor walls in each wing has been carried up as a bearing wall, in order to avoid the use of steel columns and heavy girders. The construction would of course be fireproof throughout, the use of steel or reinforced concrete depending upon local conditions. The total cubical contents of the building figured from the basement floor to the average height of the roofs amounts to 415,000 cubic feet.

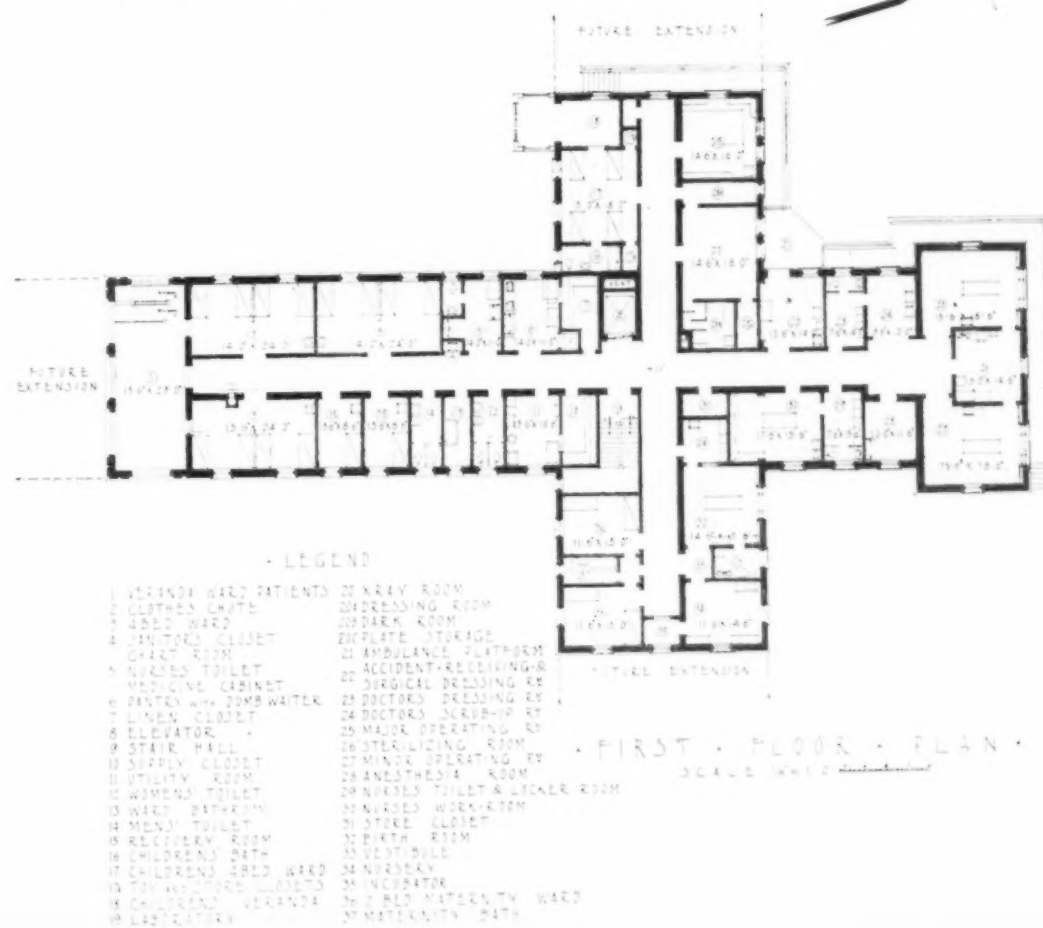
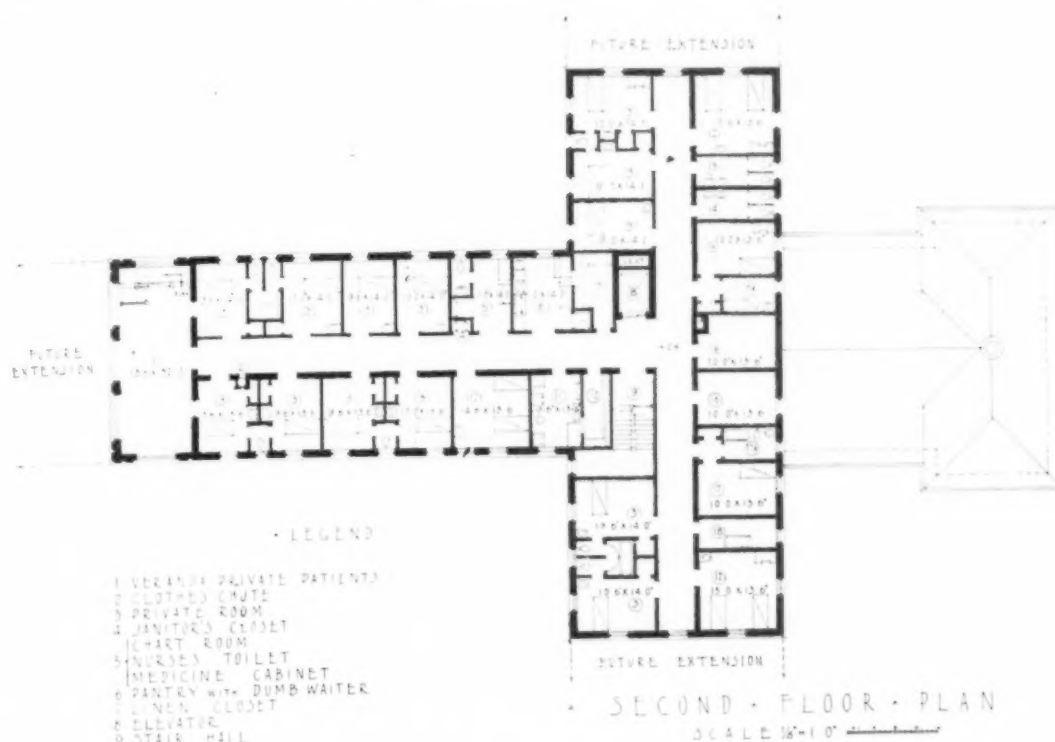
BUTLER & RODMAN.



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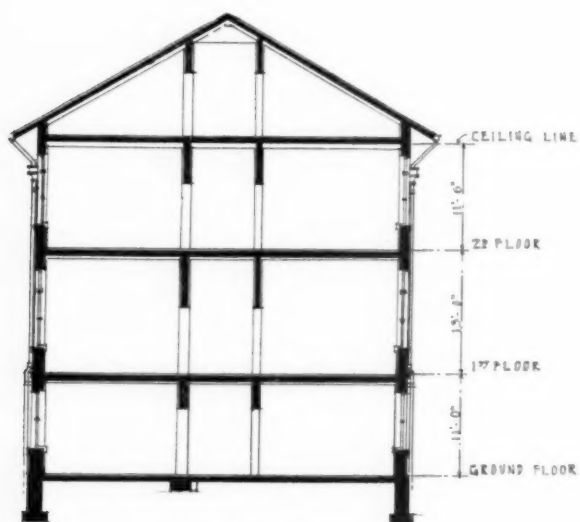
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SOUTH ELEVATION

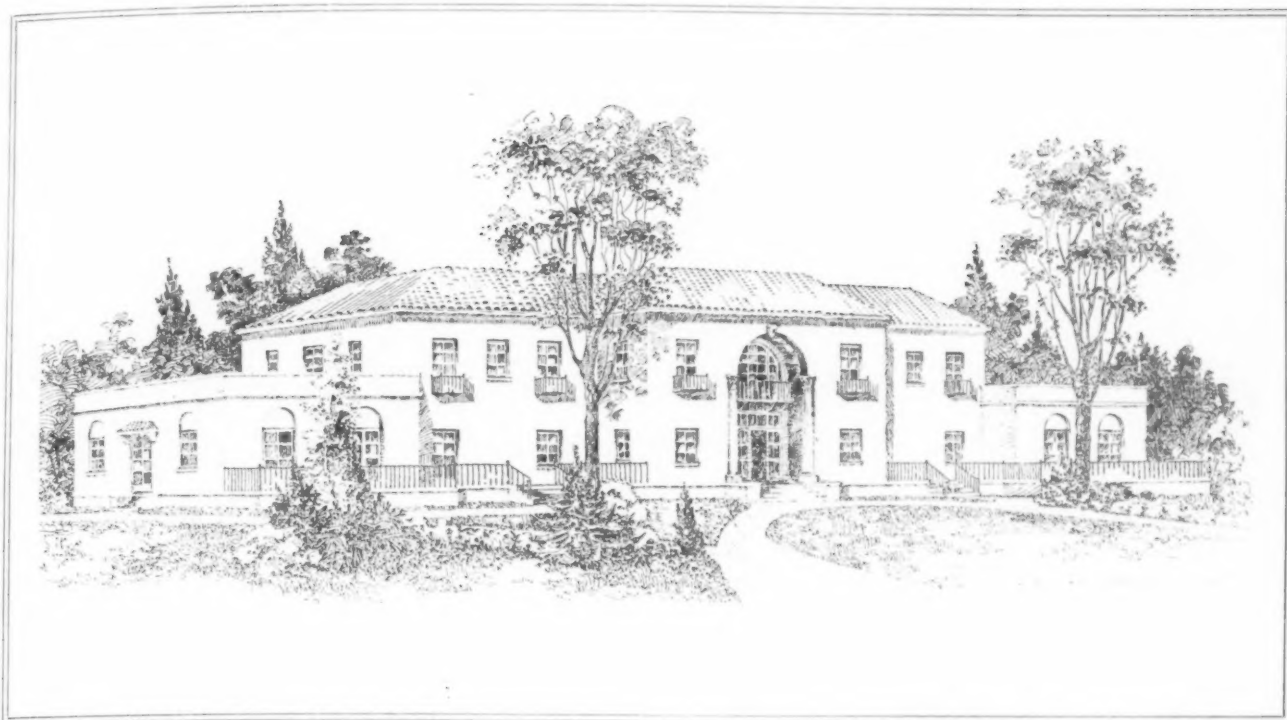
SCALE $\frac{1}{8}" = 1'-0"$ 

Cross section.



WEST ELEVATION

SCALE $\frac{1}{8}" = 1'-0"$



John J. Roth of Los Angeles won second award on a set of plans which will make for efficiency in operation and economy in nursing service. The perspective of Mr. Roth's design, Italian Renaissance in style, is unique and refreshing in that marked attention is given to form and color.

A BUILDING CHEERFUL IN APPEARANCE AND COMPACT IN DESIGN

THE plan of the small modern hospital should be intensely flexible, so executed that it will be able to take care at any time of any kind of case that offers itself.

The accompanying design was prepared for an average American community of about 5,000 people which would also receive the patronage of the surrounding country. In planning this building I have endeavored to produce an architectural design for the exterior of the building that would not be austere in appearance but one that would rather create a more cheerful impression and express an atmosphere of peace and restfulness. The building has been placed well back from the sidewalk and has an attractive landscaping with broad lawns, not too formal in design.

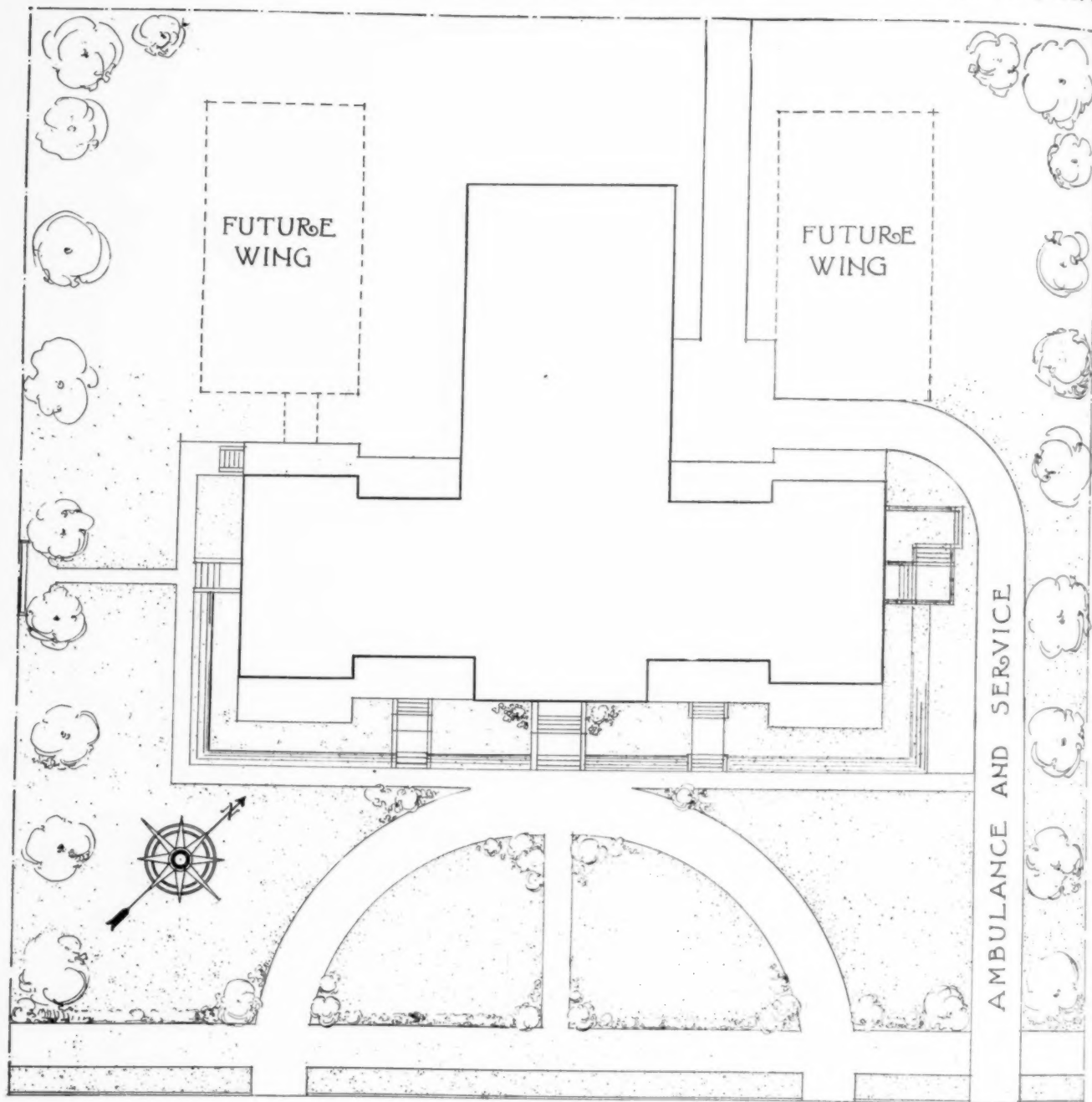
The floor plan is arranged so that future additions may be made to the building so as not to disturb its present arrangement; nor will such future additions cut down the lighting or ventilating of any part of the present building.

In its plan, emphasis was placed on centralization so as to minimize the walking distance of the nurse in giving service to patients. With distance cut down, a nurse will naturally be able to take care of more patients with the same effort, and in this way economize in the overhead operation. Airing porch space was generously distributed so as to be easily reached by all patients, making it feasible to have each bed readily rolled into the sunshine; awnings may be erected over any of these porches. Covered

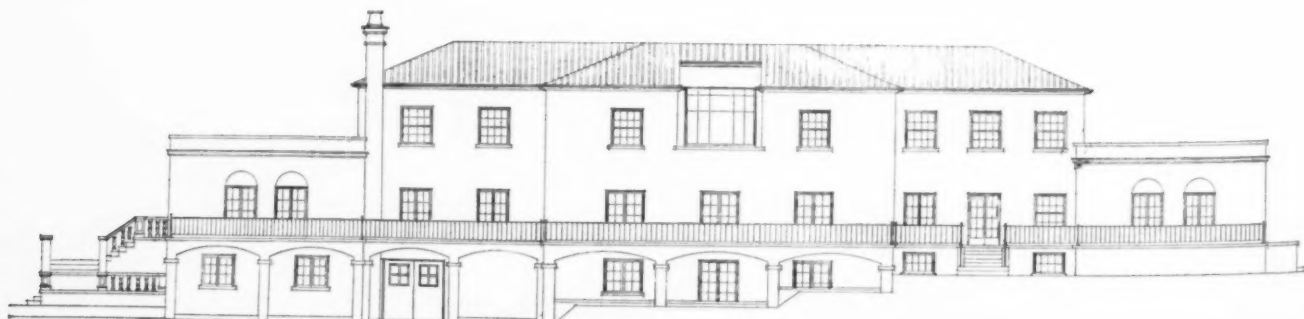
porches are not desirable owing to the amount of light, sacrificed to the porch roof and resulting depressive atmosphere in the room.

From the point of construction the two story type is more economical than a taller building, where ground is not expensive and a fairly good-sized lot is obtainable at a reasonable cost. The walls of the one story wing should be built of sufficient strength to carry a second story for future extension of the plant. This would add but slightly to the cost of construction. The walls of the exterior of the building could be constructed either of reinforced concrete, hollow tile or common red brick, with a finish surface of cream colored stucco, the type of wall construction depending upon cost per unit in the locality in which the building is to be erected. Floors are of reinforced concrete slab construction with terrazzo or magnesite finish; marble is used in main corridors. Subdued colors have been adopted for all walls and decorations; little or no woodwork has been employed as trim. Casement sash of steel type is employed throughout, thus giving a maximum amount of ventilation in the warm summer months, easily operated opening and no rattling of sash. The roof over flat portions has a quarry tile surface installed over reinforced concrete, so that if additional story is added, this floor need not be disturbed; the ceiling under is suspended to allow for ventilated air space for summer months. With this type of construction this building should be erected in any community for \$125,000.

JOHN J. ROTH,



Plot Plan



REAR ELEVATION



SECOND FLOOR PLAN



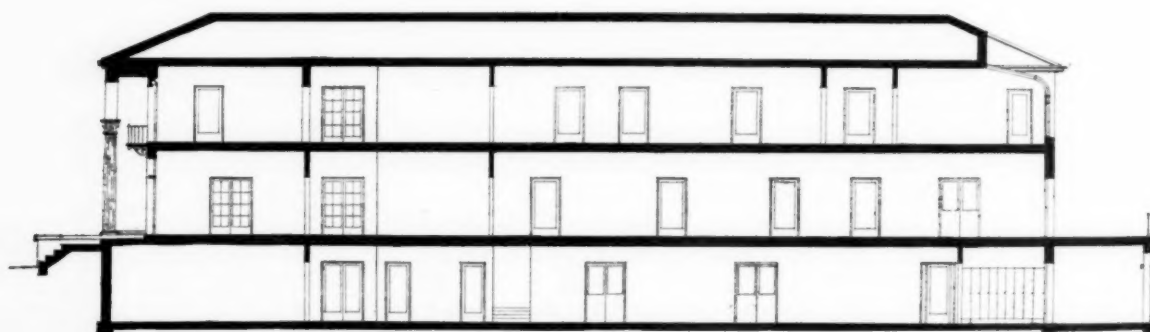
SIDE ELEVATION



PLAN OF OPERATING SECTION



BASEMENT PLAN



CROSS SECTION



Third prize was awarded Ernest C. Hoedtke of Cambridge, Mass., for the plans of the two-story Georgian building shown above. Careful attention has been paid by the architect to efficiency of operation, but the tower is thought not proportionate and unnecessarily expensive.

MORE NOTEWORTHY IN ARRANGEMENT THAN IN ARCHITECTURE

THE most important factor bearing on every question in connection with the design of this hospital was the comfort and well being of the patients. It might be said that this is too much a matter of fact to mention; it might also be considered a matter of course by a hospital architect, and then ignored in the more urgent considerations of economy of planning, of materials, and so forth. Every element in this design was tested first and last by the requirement that it make a maximum contribution toward the recovery of the patients.

It was assumed, in general, that the hospital was to be a memorial building in a city of 15,000 to 20,000 inhabitants. It was therefore to be a permanent, fireproof structure, and would cost about \$275,000. The site was taken to be a corner lot, and the distribution of the several parts of the building took into consideration the removal of the parts that most needed quiet to the locations farthest from the streets.

The exterior was thought out more in a domestic than in a monumental scale. The idea of this was that a hospital of domestic appearance was altogether more comforting and even inviting, than a massive institution with its suggestion of impersonal, wholesale treatment. Whatever the size of the building, it lies with the architect to make it domestic or institutional in appearance, and the domestic type was decidedly preferred in this design. The materials of the exterior were red brick and stone, and the design colonial.

Many possibilities of enlargement suggested themselves,

but whatever scheme might have been followed would continue the long, relatively low outline of the building and it might include repeating units at the back, or separate units connected with the building by glazed passages as drawn.

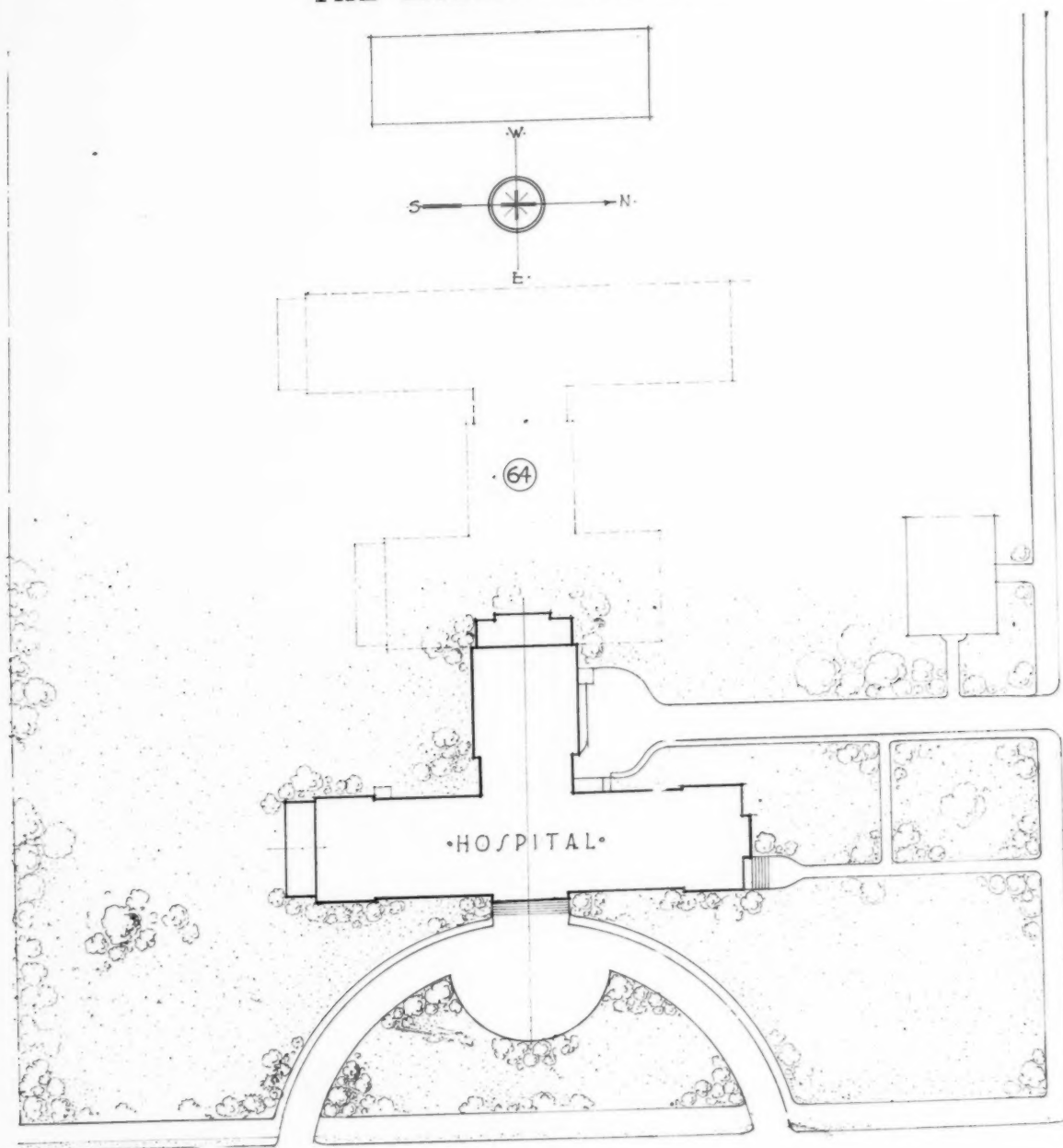
The plan involved, first, the orientation of the building in such a way that all its rooms, especially wards and patients' rooms, should be sunlit at least part of the day; second, the distribution of the large elements so that there would be the least possible necessity for interminably long corridors; third, the location of the services in such a manner that the nursing staff might be small for economy and yet able to do its work with minimum effort.

It was also borne in mind that with the expansion of the building there should be a division into medical and surgical units, the present building being one of these two.

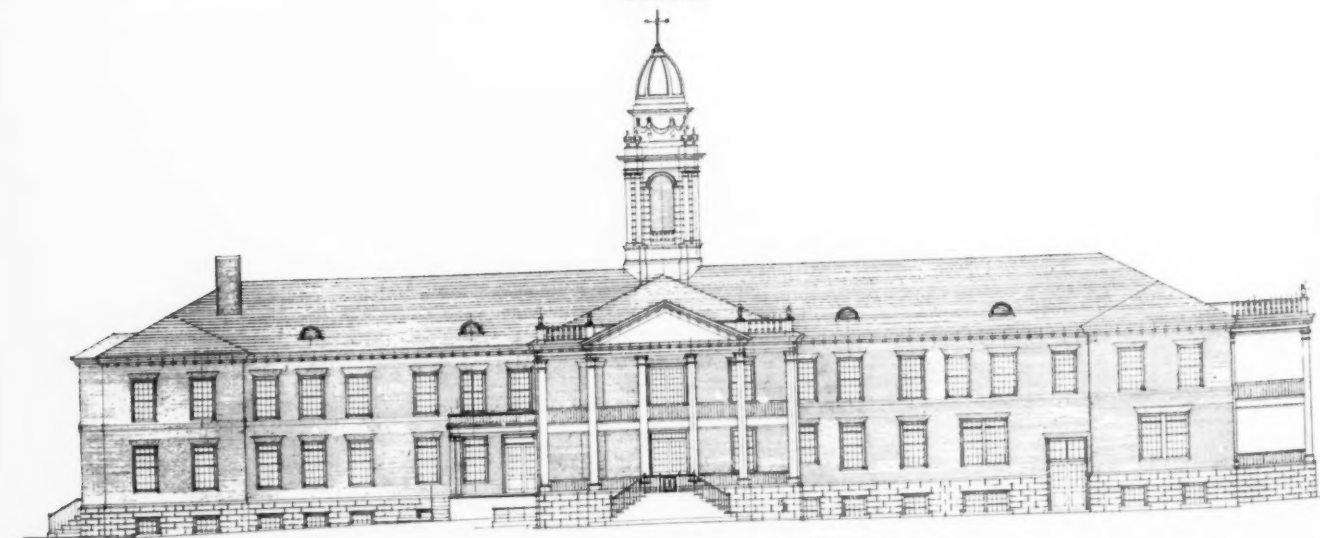
The appearance of the exterior has been mentioned. The interior is scarcely indicated on these drawings, because its attractiveness depends almost wholly on color. The trim and detail of the hospital are necessarily plain. Its color may be attractive or positively repellent.

The proportion of height to room area also is a factor in the success or failure of the interior, and in all these elements much improvement might be made in new hospital work over what is now often seen, always with the object in view that patients must be given every encouragement to recovery that attractive surroundings can provide.

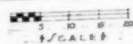
ERNEST C. HOEDTKE.



Plot Plan



REAR ELEVATION







First honorable mention went to a design so excellent that it ranked but a shade below the prize winners. Cervin & Horn of Rock Island, Ill., prepared the design, the perspective of which is shown above.

THIS IMPRESSIVE STRUCTURE IS THOUGHTFULLY WORKED OUT

WHEN designing this hospital building we had in mind to produce an exterior that would harmonize with the surroundings. The building will be located in an industrial community of 10,000 people in which is also located a college with 500 students. Both city and college are growing.

The occasion of erecting the hospital was a gift in memory of a daughter who upon graduating from the college insisted upon becoming a nurse and after a short but useful career was carried away during an epidemic.

A site had been selected diagonally opposite the college campus with its secular Gothic buildings located in the residential quarter of the city. There was little choice as to style. The same consideration led to discarding all three story schemes. A two story building with pitched roof was determined upon, keeping reasonably low so as not to appear to dominate or even compete with the other buildings.

Owing to the shape of the lot, gently sloping to the north and streets on three sides, the "L" type was se-

lected as lending itself to future additions, as will be shown later.

As the building is a memorial the entrance portion has been made into a memorial hall with a fireplace. This hall has been dignified by keeping the floor two steps below the main floor, gaining ceiling height and reducing the number of steps in the vestibule and on the outside of the building and not interfering with any important basement rooms.

Economy is somewhat sacrificed to the style selected. Exterior embellishments are, however, kept as simple as possible, consistent with the attractive buildings nearby. In plan the construction walls are straight-forward, easily laid up and economical. Brick walls are used on both sides of the corridors, for sound proofing and also to eliminate columns and beams with necessary projections around them. The general toilets for men and women were grouped close together, but kept separate by the general bath, all three so connected that one ventilating shaft and one soil stack will serve.

Economy of operation has been particularly considered and the service is concentrated around the middle of the building to minimize walking. The stairs and elevator are close together and around or nearby will be found pantry and utility, the flower room, linen closet, nurses' toilet, janitors' sink, general toilets and bath. The ambulance entrance is close to the elevator and from the elevator is a short distance to the morgue in the basement, the emergency operating room on the main story and the x-ray and operating department on the second story. A service area with easy incline leads to the kitchen and to the main basement entrance where general supplies are admitted, and to the boiler room. Ashes are removed through this same area. One driveway serves for delivery of all supplies, for the ambulance and for coal, as well as for those patients and visitors who come by auto.

The clinical records are placed between the superintendent's office and the doctors' consultation room so that all may have quick access. Utilities are arranged in almost immediate proximity to the patients' rooms and wards. Each private room has a utensil closet with a small refrigerator.

To take care of the future growth of the community, the stairway at the north entrance of the hall is made knock-down to be removed when the hospital is extended. Another nurses' station will be placed in this addition. The plans provide for further extension to the south in case of great growth, rebuilding the sun porch but otherwise interfering very little with the arrangement.

For sudden emergencies such as epidemics the sun verandas can be turned into wards as they will be supplied

with call buttons and lights. Several of the single rooms are sufficiently large to be converted into double rooms and some of the double rooms can be used for three bed wards. The children's department, well set apart, can be completely cut off in case of emergency and used for an isolation department until such time as a separate building is erected, as shown on the plot plan.

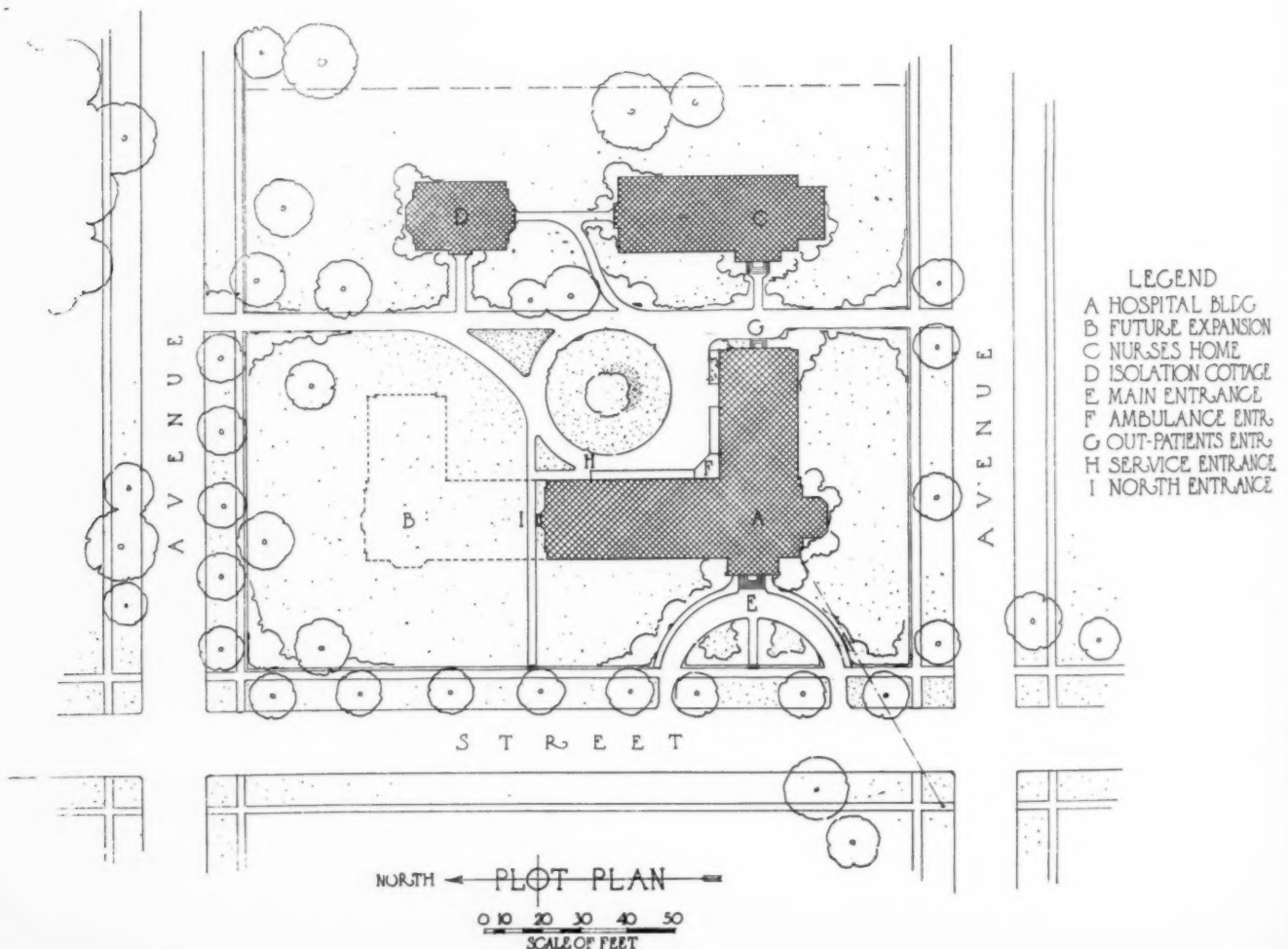
It may be noted that all patients' rooms are so placed that they have direct sunlight during the day, making them cheerful and healthy. The children's veranda is located farthest from the grown patients, so as to disturb as little as possible, and is placed near the driveway entrance. Children enjoy the coming and going of traffic.

Ventilation is provided to exhaust the air from the utilities, the pantries, the general baths and toilets of two floors and the main kitchen in the basement through one large shaft with a fan in the attic. The halls run through from end to end to permit a complete sweep of air whenever found desirable.

The boiler and coal room are located farthest from the patients' rooms to eliminate noise, as much as possible. It will also be noted that most patients' rooms where it has been possible are located away from the service side of the building.

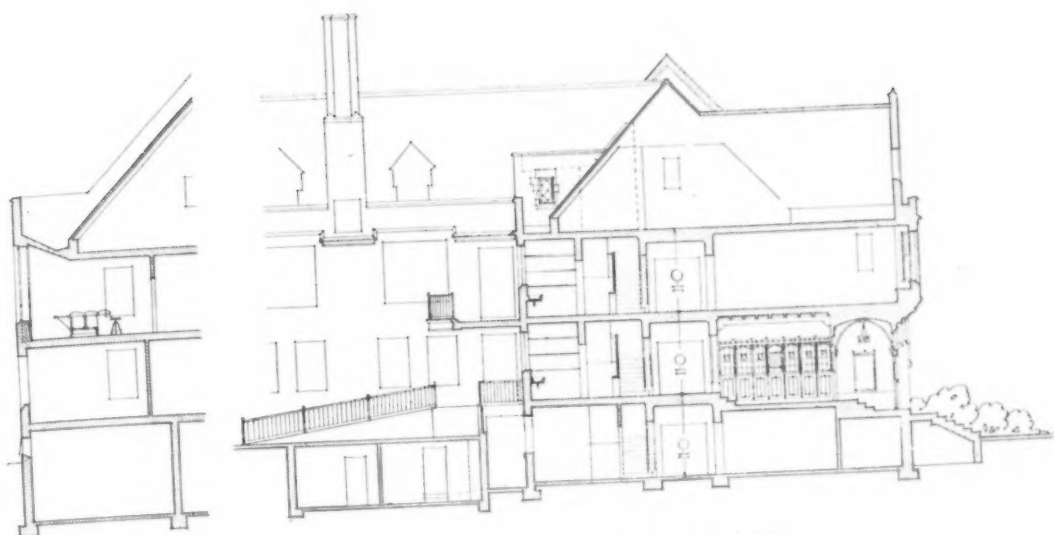
The gift provided \$150,000 for building and equipment, and the community itself must provide a site and the necessary furniture and upkeep. Owing to the unusual amount appropriated for a forty bed hospital, it is possible to provide rooms and equipment which would have to be omitted in many communities.

CERVIN & HORN.



THE MODERN HOSPITAL

May, 1923

SECTION
OPERATING R.M.

CROSS SECTION



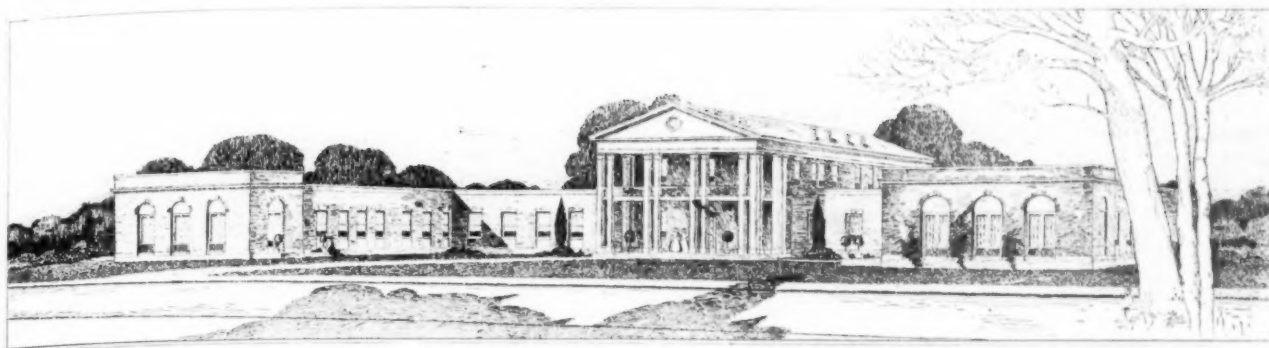
NORTH ELEVATION



EAST ELEVATION

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SCALE OF FEET





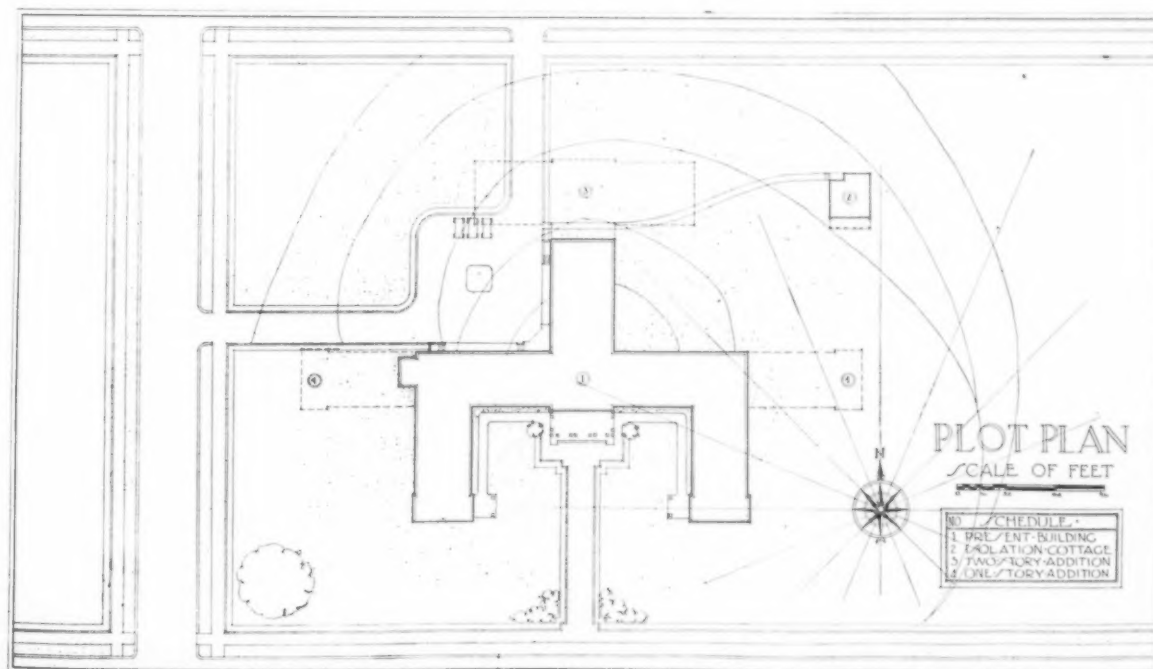
Honorable mention also was given the design of Prof. Lemuel Cross Dillenback of the school of architecture, University of Illinois. His plan is an interesting development with the maximum comfort given patients, but it would be expensive to operate.

EXCELLENT, IF PATIENTS NEED BE THE SOLE CONSIDERATION

IN ANALYZING the program preparatory to formulating a solution, the question arises. "Of what architectural value is a building of this type?" The absence of limitations as to site and size, the carefully estimated rooms and stipulated areas demand an idealistic conception which might adapt itself to a typical community whether suburban or otherwise. Experience tells us that light and air are distinct assets to the sick room, likewise that southern exposure is most desirable. With this in mind the author proceeded to develop a plan, the composition and orientation of which would open to a majority of patients, directly or indirectly, a southern exposure, and at the same time serve adequately from the standpoint of utility, flexibility and health values. The question of ground area to realize such a conception

would not necessarily be an obstacle in a community of from 5,000 to 10,000 inhabitants, for here real estate values, as compared with our cities, are relatively low.

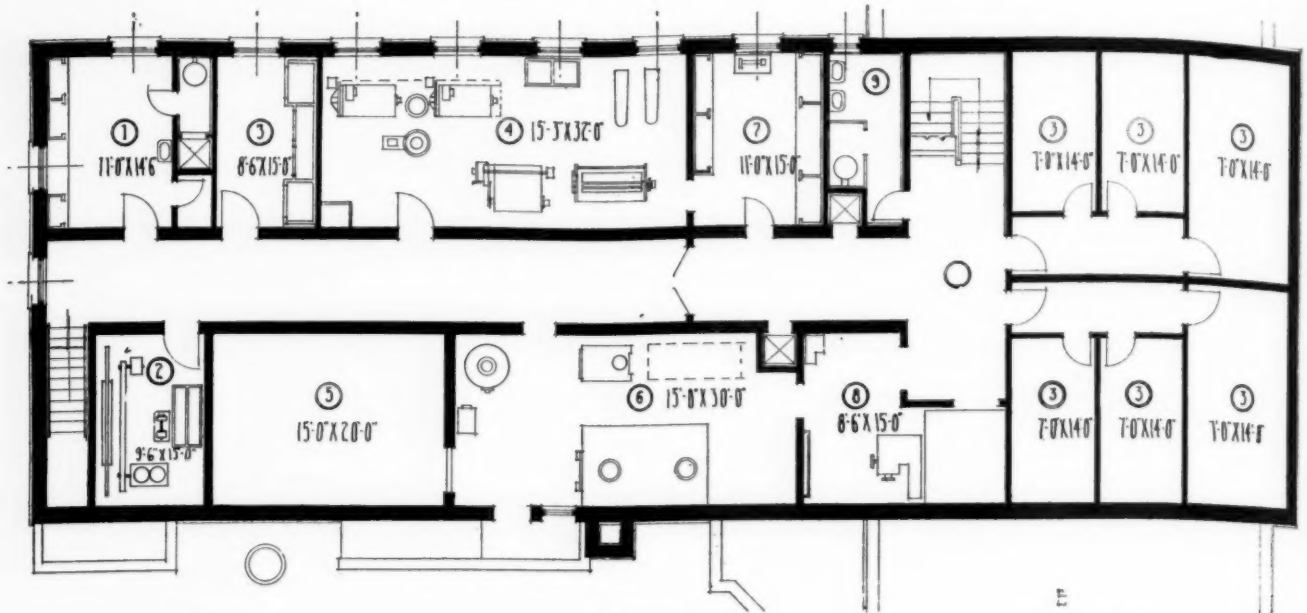
To realize a plan composed of the above requirements, the wings of the building sheltering patients' quarters were arranged to form a court whose conservative quietness and charm of beauty would add to the comfort and cheer of the patients. General services, including kitchens, dining rooms, laundry, etc., were located in a central unit to provide equally adequate services to all parts of the structure. The operating suite is placed on the second floor of the central or service unit, the operating rooms having north exposure for lighting purposes. Maternity ward and nursery, with services, are given southern exposure on the second floor and indicate privacy and



quietness appropriate for such a group.

A rigid separation of male and female patients was disregarded as well as distinctions between rich and poor.

The sexes would find sufficient separation in wards or rooms assigned to them, while the bank president might rest in comfort in a miniature suite.



BASEMENT

1. Helps' toilet and dressing room.
2. Refrigeration room.
3. Storage.
4. Laundry.
5. Coal room.
6. Boiler room.
7. Clean linen room.
8. Elevator machine room.
9. Men's toilet (public).

Basement plan.

FIRST FLOOR

1. Private and semi-private room.
2. Women's ward.
3. Men's ward.
4. Children's ward.
5. Segregation room.
6. Recovery room.
7. Medicine closets and sinks.
8. Pantries.
9. Utility rooms.
10. Linen closets.
11. Janitor's closets.
12. Supply closet.
13. Veranda (children's).
14. Veranda (ward patients).
15. Veranda (private patients).
16. Accident, receiving and surgical dressing room.
17. Drug room.
18. Waiting room (out-patients).
19. Treatment room (out-patients).
20. Office.
21. Reception room.
22. Locker and dressing room (graduate nurses).
23. Kitchen.
24. Diet alcove.
25. Cold storage room.
26. Storage for groceries.
27. Officers' dining room.



FIRST FLOOR PLAN

SCALE OF FEET

30. Nurses' dining room.
31. Helps' dining room.
32. Resident physicians' room and bath.
33. Superintendent's room and bath.
34. Toilets (women patients).
35. Toilets (men patients).
36. Toilets (nurses).
37. Women's toilet (public).

38. Ambulance entrance.
39. Doctors' toilet and wash room.
40. Helps' dressing room and toilet.
41. Patients' bathroom.
42. Lobby.
43. Vestibule.
44. Nurses' stations.
45. Dish washing.

in wards or
resident might

It may be added that the possibilities of expansion to this type of plan seem admirable. First: the original plan as indicated might be erected in portions, namely: the east wing with service unit; later the west wing, completing the court composition; then the extended east and west wings, as indicated on the plot plan, both units being adjacent to the already completed service groups; later could be added a one or two story unit to the north,

providing additional services and increased operating equipment.

For the exterior the Georgian style of architecture was used. It is universally appropriate for all situations with a possible exception of the Pacific coast where the mission style would perhaps meet the environment better.

The cost of the building is roughly estimated at \$175,000.

LEMUEL CROSS DILLENBACK.



Second floor plan.

1. Operating room.
2. Minor operating room.
3. Birth room.
4. Sterilizing room.
5. Doctors' dressing and scrub-up room.
6. Nurses' work room.
7. Anesthesia room.

8. Nurses' dressing room, lockers and toilet.
9. Clinical laboratory.
10. Plate storage room.
11. Dark room.
12. Small dressing room.
13. X-ray room.
14. Pantry.

15. Utility room.
16. Janitor's closet.
17. Supply closet.
18. Nursery.
19. Maternity ward.
20. Linen closet.
21. Bathroom and toilet.

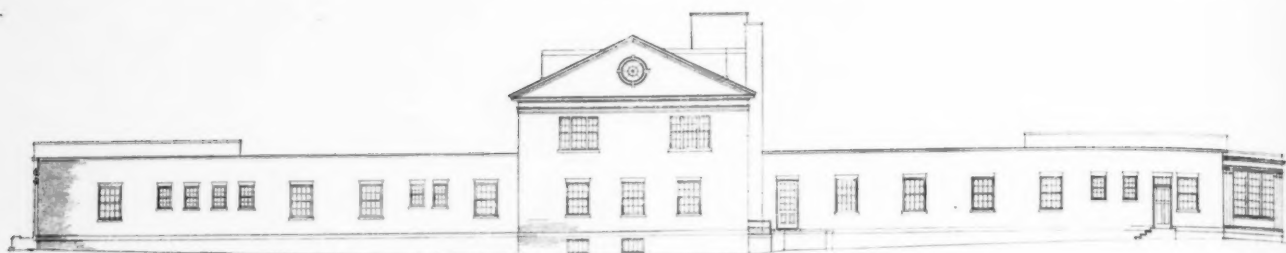


SECTION



EAST ELEVATION

SCALE OF FEET
0 10 20 30



NORTH ELEVATION

Requirements of Program

The requirements of the hospital, as stipulated in the general program, were that the building should consist of not less than thirty or more than forty beds and should provide for the following services:

(a) ROOMS AND WARDS

1. Private and semi-private rooms (single and double rooms, some with private baths and water closets) 16-20 beds.

2. Women's ward, 4, 5 or 6 beds.

3. Men's ward, 4, 5 or 6 beds.

4. Maternity ward, one or two 2 bed or one 4 bed.

5. Children's ward, one 4 bed.

6. At least 2 one bed rooms accessible to the wards for recovery and segregation.

The number of private rooms may be more than sixteen but not more than twenty; the capacity of the women's and men's wards may be four, five or six beds, or, one or more additional four-bed wards may be introduced.

There shall be at least 80 sq. ft. of area per bed in the wards for adult patients, and not less than 60 sq. ft. in the children's ward.

(b) SERVICES

There shall be separate services for private and ward patients and at least one complement on each floor, designed for the use of patients.

1. Charting space.

2. Medicine closet and sink.

3. Pantry, 130 to 160 sq. ft.

4. Utility room, not less than 120 sq. ft.

5. Linen closets not less than 50 sq. ft., or linen room not less than 100 sq. ft.

6. Janitor's closet.

7. Supply closet.

8. (Additional conveniences optional.)

(c) VERANDAS

There shall be at least three separate veranda spaces,—for ward patients, private patients and children.

(d) OPERATING DEPARTMENT

Operating room, not less than 15 ft. wide and 15 ft. long.

1. Sterilizing room, 180 sq. ft.

2. Doctors' scrub-up room, 65 sq. ft. (may be combined with doctors' dressing room).

3. Doctors' dressing room with lockers and toilet, 100 sq. ft.

4. Nurses' dressing room with lockers and toilet, 100 sq. ft.

5. Nurses' workroom, 180 sq. ft.

6. Anesthesia room, 100 sq. ft.

7. Minor operating room planned to serve as an emergency or delivery room; suitable also for dental, eye, ear, nose and throat and for cystoscopic work, not less than 14 ft. wide and 15 ft. long.

8. Accident receiving and surgical dressing room.

9. Birth room, not less than 14 ft. wide and 15 ft. long.

10. Nursery, 180 sq. ft.

11. X-ray room, 225 sq. ft.

Dark room.

Small dressing room.

Plate storage room.

12. Clinical laboratory, 225 sq. ft.

(e) IN GENERAL

1. Drug room, 150 sq. ft.

2. Waiting room for out-patients.

3. Treatment room for out-patients.

4. Clinical record room (may be combined with office or visiting doctor's consultation room.)

5. Office.

6. Reception room.

7. Visiting doctors' consultation room, 150 sq. ft.

8. Locker and dressing room with bath for graduate nurses, 150 sq. ft.

9. Kitchen, including facilities for the preparation of special diets.

10. Cold storage room.

11. Storage for groceries.

12. Officers' dining room.

13. Nurses' dining room.

14. Helps' dining room.

15. Resident physician's bedroom and bath, 120 sq. ft.

16. Superintendent's bedroom and bath.

17. Two bedrooms for male help, with bath room.

18. Two bedrooms for female help, with bath room.

19. Laundry.

20. Clean linen room.

21. Boiler room, (but not lighting or power plant) and coal bin.

22. Storage rooms for miscellaneous supplies.

23. Lavatories and toilets, as required.

The buildings should be planned to admit of expansion and the drawings should indicate the direction of this expansion.

It is assumed that the nursing staff will be accommodated outside of the hospital.

For the care of contagious diseases the hospital contemplates building a small isolation cottage. Its inclusion on the plat is optional.

Inasmuch as it is the purpose of the competition to bring out new thought, competitors are free to introduce into the plan elements which they regard as desirable, which are not specifically included in the slated program.

Obviously, provisions should be made for such necessary parts as elevators, stairs, dumb waiters, soiled linen chute, boiler flue.

IN TRIBUTE TO HERBERT BURR HOWARD, M. D.

DR. HERBERT BURR HOWARD died suddenly at Lynchburg, Va., March 6th, 1923. With Mrs. Howard and Dr. and Mrs. Owen Copp, he was returning to Boston by automobile from a trip to Florida when his death occurred. He had suffered from angina pectoris for several years and knew that he might be taken quickly at any time.

Members of the American Hospital Association and readers of THE MODERN HOSPITAL knew Dr. Howard so well that it seems unnecessary to recapitulate his many achievements, but the record of such a life should be in the files of this magazine and, besides, many who knew a part of his work were unfamiliar with other parts.

Was a College Athlete

Dr. Howard was born at Fitchburg, Mass., March 24, 1855, the son of Luther Grant and Sarah Burr Howard. His boyhood was spent in Paxton and Worcester, Mass. He entered the Military Academy at Leicester and was graduated from Worcester High School. From good inheritance and early life on his father's farm he developed into a young man of great physical strength. Nearly twenty years of age when he decided to go to college, he was more mature physically and mentally than most of his mates in the class of 1881 at Harvard College. He was on his class crew for four years and on the University eight his junior year. He withdrew from the crew his senior year to devote more time to his studies.

After graduation from college, he went to the Harvard Medical School where he obtained the degree of M. D. in 1884. While he was a student in medicine, the State Almshouse, later the State Infirmary, at Tewksbury, Mass., was under investigation by Governor Butler. The male nurses became frightened and left. The resident physician called upon the medical students for help to care for the patients. Dr. Howard with others responded to this call and so made the acquaintance of the institution with which his early successes in administration were associated.

After his graduation from medical school, Dr. Howard returned to Tewksbury as assistant resident physician. With the exception of two years spent in private practice in Colorado, his active life was spent in hospitals.

In 1891 Dr. Howard was made superintendent of the State Infirmary. He carried out an extensive program of construction and organization. He had under his charge there many insane patients and developed that knowledge and insight into their needs which he used so much to their advantage in later years.

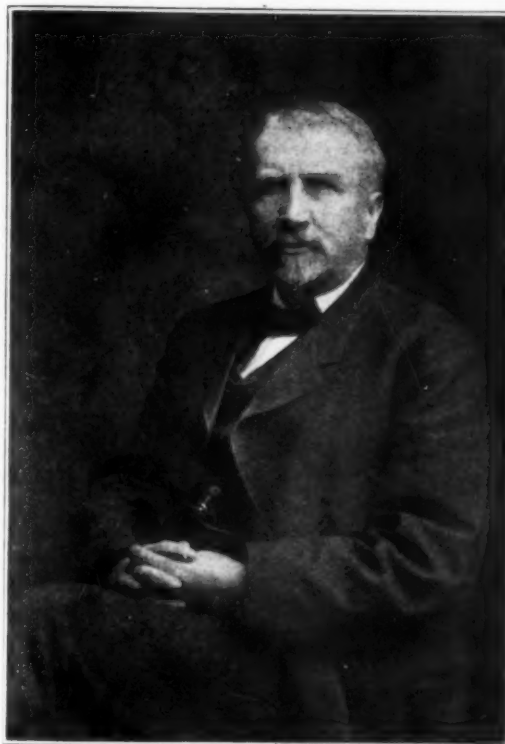
In 1897 the trustees of the Massachusetts General Hospital selected him for resident physician (then the title of the position of superintendent or director). They pro-

posed an extensive program of construction at the general hospital and chose him to plan and carry it out. He quickly grasped the problem and made a plan which is essentially that pursued to this day in the development of this old institution.

Record at Peter Bent Brigham

His success was such that the trustees of the Peter Bent Brigham Hospital naturally turned to him when they were to build an entirely new institution. Dr. Howard resigned from the Massachusetts General Hospital in 1908 to become superintendent of the Peter Bent Brigham Hospital with this responsible and arduous task of construction before him. One of the early questions which confronted him was that of the division of funds between endowment and construction. He determined that the buildings should be of the simplest nature consistent

with complete adequacy to the requirement of modern medicine. His object was to save for endowment every penny possible, for he knew better than most men the tremendous costs of maintenance and the difficulties and criticisms that would be encountered if an early appeal for funds was made to the public. The position which he took was no easy one to maintain. Strong forces urged him to large expenditures on architectural effect. His trustees stood by him and the hospital was built in a simple manner. As a result the Peter Bent Brigham Hospital has come through the trying times of the war and the post-war period without an appeal to the public for more money. In fact, now ten years after its opening, the hospital is living within its income. The ward unit which Dr. Howard developed is conceded to be the best. The hospital shows everywhere his thought and the results of his experience used to make patients comfortable and to facilitate the work of doctors and



Dr. Herbert B. Howard

nurses. The organization of this hospital and the selection of its personnel was a great task well performed.

Dr. Howard reached the retiring age during the World War but stuck to his task in spite of fatigue and ill health until in the spring of 1919 the return of another hospital executive from abroad made it possible for his successor to relieve him.

Active Member of State Boards

Dr. Howard was a member of the Massachusetts state board of insanity from its foundation by Governor Murray Crane. When the board found it necessary to establish the State Colony for the Insane, Dr. Howard spent much time in selecting the site. He then resigned from the board to become the first chairman of the board of trustees of the State Colony for the Insane at Gardner, Mass. Here under his wise guidance its first superintendent, Dr.

Joseph B. Howland, planned and built the institution. When this hospital was well established he was again appointed to the state board of insanity and became its chairman.

Dr. Howard was one of the very early members of the Association of Hospital Superintendents from which grew the American Hospital Association of which he was president in the year 1910.

He was married in 1886 to Dr. Margaret Emily Pagelson, then superintendent of the New England Hospital. He is survived by his widow, by their daughter, Dr. Sarah Ernestine Howard, and their son, Charles P. Howard of Reading, a lawyer practicing in Boston and a member of the senate of Massachusetts.

This is an incomplete record of the life work of Dr. Howard. No record is complete without some estimate of his character. Indiscriminate praise is the poorest compliment that could be paid him.

Always Sought Patient's Best Interest

A man of large frame and great strength his frank, friendly face and clear, penetrating eye inspired confidence at once. His loyalty to his friends was an outstanding trait. When he gave his confidence he gave it completely. His broad experience and natural, shrewd Yankee sense gave him great wisdom which was always at the service of bewildered and troubled hospital executive officers and others. Although Dr. Howard's hospitals were models of efficient management, he was old fashioned and never placed "efficiency" above the homely virtues of honesty, humanity and loyalty. "The best interest of the patient" was the keynote of his hospital life. He repeated it often and before it shrivelled selfish plans of those who desired to place other hospital functions above this one. Once assured that the care of the patient came first, his interest was keen in medical education, the training of the nurse and other legitimate hospital activities.

His death affects not only his family and his close friends. Every hospital worker who knew him feels the severe loss. No one can fill his place.

HOSPITAL FIRES ARE NUMEROUS

Hospital fires have formed bases of many headlines in the daily press recently. Although loss of life has been confined to one notable instance, the property loss has been high.

The sum of \$40,000 will be asked to replace the hospital building at the New York State Agricultural and Industrial School at Industry, which was destroyed by fire on the morning of February 23. The fire was caused by sparks from the chimney alighting on the roof of the wooden structure. Except for the efficiency of the fire-fighting apparatus and the heroism of the boys, the east wing of the hospital would have been burned, it is said.

In early March fire, originating from defective wiring, caused damage estimated at \$5,000 to the Buie Clinic at Marlin, Texas. The same cause was given for the fire which destroyed the Mountain View Hospital at Chesnee, South Carolina, on March 7. Three patients, one on the operating table, were rescued from the building. The building was erected two years ago by Dr. J. B. Cash for \$60,000, a part of which is covered by insurance.

At the government hospital at Augusta, Ga., on March 4, fire was discovered under the cook ovens in one of the kitchens. Before it could be extinguished it had caused damage to the new building estimated at \$1,000. The building is of stucco construction and was regarded as fireproof.

Mullins Hospital at Mullins, South Carolina, was completely destroyed in a fire on March 8. The institution will be rebuilt at once of fireproof construction.

Fire in the laundry rooms of the County Hospital at Denver, Colo., on March 7 threatened the destruction of the insane ward of the institution and virtually destroyed the laundry building.

Blame for the loss of life in the recent disastrous fire at the Manhattan State Hospital on Ward's Island, New



International Newsreel Photo

The ruins of the dormitory in Ward 43 of the Manhattan State Hospital for the Insane on Ward's Island, New York, which was swept by a fire that caused the death of twenty-two patients and three attendants. It was within this dormitory that all the men met their death. An investigation by the state hospital commission placed the blame for the loss of life on the crowded condition of the wards. The old buildings must be replaced by fireproof structures, it has been recommended.

York, in which twenty-two patients and three attendants were killed, was placed on the crowded condition of the wards, by the state hospital commission in its recent report to Governor Smith. Only the replacement of the old-type hospital buildings and the installation of high pressure salt water systems will lessen the fire risks, the report said. More patients than the normal capacity of the building were really removed during the fire before the fall of an old water tank blocked the passage and cut off the escape of the others.

Other recent hospital fires include a small conflagration at Auburn Hospital, Auburn, Neb., which started in the garage; a fire that broke out in the rear of Mignon Hospital at Sylacauga, Ala., resulting in slight damage; and a \$30,000 fire at Rochester, N. H., where Dr. E. M. Abbott's Hospital on the second floor of an office building was badly damaged.

NEW CHILD HEALTH ASSOCIATION

The new American Child Health Association, which was formed through an amalgamation of the American Child Hygiene Association and the Child Health Organization of America, has opened offices in the Penn Terminal Building, New York, and will also maintain headquarters in Washington, D. C. The officers of this new association are: Herbert Hoover, president; Dr. L. Emmett Holt, first vice-president; Dr. Livingston Farrand, second vice-president; Dr. Thomas D. Wood, third vice-president; Dr. Philip Van Ingen, secretary; Corcoran Thom, treasurer. Courtenay Dinwiddie is the general executive.

He will always be a slave who does not know how to live upon a little.—Horace.

LIABILITY OF HOSPITAL FOR ACTS OF ITS SERVANTS*

BY JOHN A. LAPP, DIRECTOR, DEPARTMENT OF SOCIAL ACTION, NATIONAL CATHOLIC WELFARE COUNCIL, CHICAGO.

THE wrongs for which individuals seek redress consist of two main classes: those which result from a breach of contract, and those which arise from negligence or from wrongs committed, such being generally known as torts.

A breach of contract consists in failing to do something that one has agreed to do, or in doing something that one has agreed not to do. A tort consists in doing something to the prejudice of another which one ought not to do, or doing some rightful act but in a negligent or wrongful manner, time, or place, or by failing to do what ought to be done, thereby causing suffering or injury to another.

Law of Torts Requires Ordinary Prudence

Contracts are quite definite in form when they are written specifically indicating what is or is not to be done. Failure to live up to a written contract is quite easily determined. There are certain forms of implied contracts which are not so definite as a written contract, but which may be fairly easily determined. In the case of torts, on the other hand, there is considerable indefiniteness. When is a man injured in his property, person, or rights? How much is he injured? Is the person who causes the injury chargeable with negligence? What is negligence? All of these represent practical questions that arise in each individual case. The tendency of the law of torts is to give the plaintiff relief only if the defendant was culpable in some way. It must be proved that the defendant intended to damage the plaintiff, or that he might have avoided damaging him by using the proper amount of care, or that he was engaged in an unlawful act at the time the plaintiff suffered the injury. The standard of care required by the law of torts is that of ordinary prudence, whether the amount of care owed is great or small. Negligence is a relative term, and conduct which would be considered negligent in some circumstances might well be considered due care under other circumstances. The standard is that of the ordinarily prudent man under similar circumstances.

It is the purpose of this paper to discuss the subject of liability for negligence, leaving the liability for contracts out of consideration here. We have now to discuss the relationship of the law of prudence to the management of hospitals, and the responsibility which they carry for the acts of their physicians, nurses and other assistants. Three types of hospitals will need to be discussed separately, for the responsibility depends upon other considerations in some institutions than pure negligence. Public institutions have slight liability for the acts of assistants. Private hospitals conducted for profit have very few exemptions from liability for the acts of assistants. Private benevolent or charitable institutions have a limited amount of liability. The distinction among the three is very important.

Public Institutions and Hospitals

Public institutions and hospitals created by the federal, state, or local governments are not liable for damages caused by negligence or incompetence of their officers or employees, unless that liability has been definitely fixed

upon by the constitution of the state, or by statutes, or unless that liability has been expressly accepted in the constitution or the law.

The reason for the exemption of public hospitals has been frequently stated in much the same terms as follow, namely: The funds for the maintenance and support of such institutions are appropriated by the state and are made up of sums collected from the citizens by taxation. The purpose of the appropriation is a purely charitable one, that is, to take care of the poor unfortunate ones confined in the institution, and is a governmental duty, and the institution is managed and controlled by the state with that sole end in view. Neither the state nor officials derive any benefit or profit from the funds appropriated for such purposes, and to allow them to be diverted from their sacred purpose to pay judgments for injuries inflicted by employees when acting beyond the scope of their employment, would be contrary to law and public policy, and would in time wreck all the charitable institutions in the state.

The law of master and servant does not apply in such cases. The officers are appointed for the administration of a public benefit and necessity, and are directed and compelled by law to employ persons to assist in the proper performance of the functions of that office. The assistants do not perform their duties as servants of, or for the benefit of, the institution or its board of directors.

A person may sue the individual or officer who is responsible for the negligence, but all that is necessary to do to escape negligence is to show that the officer or individual was acting within the law. If an officer cannot show statutory power to do a certain thing, he will be personally guilty of negligence and liable to the one injured. This rule makes the definite requirement upon officers and employees that they act within the law. It does not offer relief to an injured person even at best, for it would be of doubtful value to sue an individual employe, or petty officer who may be directly chargeable with negligence.

Duties Required by Law

It should not be inferred that any kind of hospital, public, profit-making, or charitable, is exempt from liability placed upon it by the constitution or statutes. Unless the constitution of the state prohibits it, the legislature may place liability upon any type of institution; unless, of course, in the case of a private institution, the charter should be violated, in which case it would be a breach of the obligation of contract. In such cases the legislature could provide liability for all future hospitals, but could not affect those which had a contract in a charter which guaranteed immunity.

Moreover, it should not be inferred that the present standards of liability are fixed, even in the absence of legislation. Courts may change their minds; new decisions become controlling ones, and that which is immune today may be reversed tomorrow by the court; although, of course, it is not likely to happen without impelling reason. The legislature may make and has made hospitals liable for injuries to their own employees, under the workmen's compensation laws. In such cases, all hospitals have the same liability as the industries of the state. Many other instances could be cited of direct obligation placed upon hospitals in common with other enterprises.

*Paper read before the Annual Congress of Medical Education, Licensure, Public Health and Hospitals, March 6, 1923.

In the absence of further law, however, at this time, it may be repeated that public institutions are exempt for liability for torts; private hospitals for profit are subject to all the liabilities which similar enterprises are subject to, and that at the very most, charitable hospitals are made liable for negligence, but only when it is proved that they did not exercise due care in the selection of competent help.

Two Kinds of Private Hospitals

Private hospitals consist of two kinds: first, charitable or benevolent hospitals not conducted for profit, and second, hospitals conducted for profit.

What is the liability of each kind of private hospital for the acts of its assistants, particularly its physicians? There is a wide difference in the degree of liability of the two kinds. As pointed out before, a hospital for profit is held to a strict accountability, like other business corporations, while the charitable hospital has a rather large immunity.

When Is a Hospital Charitable

In this discussion we are first called upon to determine when a hospital is a charitable, and when a profit-making enterprise. Much depends upon that point. The decisions of the courts are numerous, but there are certain definite quite universal conclusions. One of these is that the form of incorporation is largely controlling. If a hospital is incorporated for profit under the business incorporation law, with capital stock or other earmarks of the business corporation, it is a hospital for profit, even though it has not made profit, does not make profit, and in the very nature of things could not make a profit. On the other hand, if a hospital is incorporated under the benevolent institution law, or similar incorporation law, it is not a hospital for profit, even though it makes money, creates a surplus, and uses the surplus for the building of other hospitals. This distinction is important—in fact, vital to a hospital's security. Every hospital should look to its charter. Hospitals have been conducted as perfect examples of charitable institutions, without apparently knowing that their charter called for capital stock and had other indications of a business corporation. That such stock was never issued, and that the work done was the purest of charities, did not prevail against the provisions of the charter.

Holy Cross Hospital Case

The following case will indicate the significance of this statement. It was brought in Utah by one Getzhoffen against the Sisters of the Holy Cross Hospital. The action was brought to recover damages alleged to have been sustained by plaintiff through defendant's negligence while he was an inmate of defendant's hospital. It was alleged that the defendant was a corporation organized under the laws of the state of Indiana, and was doing business in Utah for profit. The defendant admitted that it was a corporation organized for the purpose of establishing, maintaining and conducting hospitals for the treatment of sick, wounded and injured patients, but that the hospital was conducted by the defendant solely as a charitable institution and not for profit. The evidence showed that the charter provided for capital stock and the court said: "That the articles upon their face purport to create an organization for pecuniary profit. It has been quite generally held that the nature of the corporation must be determined from its articles of association, and that its character cannot be changed nor modified by parol evidence; that the object and purpose for which a corporation is organized must be gathered alone from the written instru-

ments, and cannot be aided nor varied nor contradicted by testimony outside of the instrument itself."

In another case of similar character in Minnesota, the articles of incorporation provided for capital stock. No capital stock was ever issued, and the corporation depended almost wholly for its support upon contributions from charitably disposed persons. The court ruled that the nature and character of a corporation must be determined from its articles of association, and that its character cannot be changed nor modified by evidence that it was not in fact such a corporation, as its articles purport to make it; that in determining the character of corporations, the articles of association are the sole guide.

Since the hospital for profit escapes none of the risk of negligence, and charitable hospitals have a large immunity, it is highly important for all institutions seeking to come in the latter class, to look to their legal foundations.

Hospitals Connected with Medical Schools

Another class of institutions comprise the hospitals connected with medical schools. In the case of such schools conducted by the state, the hospitals are, of course, exempt from liability. In the case of hospitals connected with institutions conducted under private auspices, or by individual owners, the same rules apply as in other hospitals. The whole question is one of the character of the parent institution—the medical school. If the medical school is organized for profit, or with any of the earmarks of a business corporation, the hospital which it conducts as an adjunct to its training is not a charitable institution, whether it gives its work to charity or not. It has been held in several cases involving privately owned medical schools that such hospitals are conducted for the advantage of the school, and the school being a profit-making enterprise, the hospital cannot be exempt from liability. Again it is important to go back to the original charter of the medical school to see whether or not it was organized technically as a business corporation or as a charitable or benevolent institution. It is possible that in the transition from private ownership to public and quasi-public control, some charters may still retain the evidence of a business organization.

The Kentucky court of appeals summed up the matter the liability of a hospital owned by a private medical school as follows:

"It is manifest from the evidence that the hospital is maintained because it is necessary to the successful conduct of the school of medicine. Without the clinical instruction and the operations by the professors in the presence of the students, the school could not be maintained with success. The hospital is an adjunct, and part of the medical school. Whatever gain may result from the operation of the medical school goes to the owners of the property. While the evidence shows a great deal of charity work is performed in the treatment of patients and in dispensing medicines, still the institution is conducted for profit."

Industrial Hospitals Construed as Charitable

Another class of cases arises in connection with industrial hospitals owned and conducted by private organizations. Curiously enough, in such cases the courts have generally construed that a hospital conducted by an industry for the service of its employees is a charitable enterprise. This line of decisions goes so far as to include among charitable institutions those where a regular monthly contribution is made by the men to provide for their medical and hospital attention. Among these cases to be cited is one by the United States circuit court of appeals, arising out of the claim for damages for mal-

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practice of physicians in the Union Pacific Railway Company's Hospital conducted for the benefit of its employees at Denver. The court said:

"The test which determines whether such an enterprise is charitable or otherwise is its purpose. If its purpose is to make profit, it is not a charitable enterprise. If it is to heal the sick, without hope or purpose of getting gain from its operation, it is charitable. Tried by this test, the hospitals and medical department of this company are a great public charity corporation. There is no evidence that there ever was any purpose or intention on the part of the company to make any profit through the operation of this hospital or the supplying of these physicians. The sole purpose that this record discloses was to relieve these employees from sickness and suffering. If it is urged that this gift may have been promoted by an ulterior and selfish motive—that the company may have thought that the operation of its medical department would protect it from excessive claims for injuries resulting to its servants—the answer is that the true test of a public charity is not the notice of the donor, but the purpose to which the money given is to be applied.—*Union Pacific Railway Company vs. Artist, 60, Fed. 365.*

To a similar effect is the case of *Richardson vs. Carlin Hill Coal Company, 10 Wash. 651*. In this case the company retained one dollar per month from the wages of employees for the purpose of providing hospitals and medical service. The court said:

"None of the money was used by the company in practicing its business, nor did it in any way profit from it. This hospital was maintained and the physicians provided for the sole purpose of relieving sick and injured employees without expense to them, and without any intention on the part of the company for making profit out of the undertaking. It was, therefore, a charitable institution, and it was supported by the contributions of employees, and carried on in their interest."

In another case (*Eighmy vs. Union Pacific Railway Company, 93 Iowa, 538*) where the court said:

"A railway company voluntarily furnishing a hospital for the treatment of its employees in case of injury is not liable, provided it employs competent surgeons."

Question of Liability

We return now to the question of liability of profit-making and charitable institutions. Briefly, it may be said that in the case of profit-making institutions they are liable for the mal-practice of physicians employed by them for all of the reasons that a physician might be liable for mal-practice in his own private practice plus all of the liabilities of a business enterprise. The physician being the servant of the hospital in such cases, the rule of law is that the superior is responsible. A different question arises when the physician is not employed by the hospital but brings a patient to the hospital. Not being an employee, the hospital is not liable for his negligence. The patient must seek redress for negligence against the physician himself.

When we consider the charity hospital, quite a different rule applies. In a few states, notably Massachusetts, charity hospitals are entirely exempt from liability under the present court decisions. No matter how much negligence may be chargeable to an employee, the hospital is not liable. In the case of a private physician treating a patient in such hospital, the physician alone would be liable for negligence. At the other extreme of cases relating to charitable hospitals is the recent Ohio decision, which places definitely upon the hospitals the requirement that they select their employees and assistants with due care. If such employees and assistants are selected with due care, there is no liability, but if they are not selected with due care, the hospital becomes liable. This latter doctrine will be likely to be the ruling one in the future for charitable institutions. It does not, however, place heavy

liability upon the hospital. All that is needed is reasonable care in the selection of assistants. If a hospital selects a physician, nurse, or attendant, with knowledge of his incompetence, the hospital would be liable. It would also be liable if it retained such a person after his incompetence had become known. A person subject to epileptic seizures employed to run an ambulance or an elevator would make the hospital liable for his acts. A nurse or attendant suffering from some communicable disease, hired by a hospital, would make the hospital liable for consequences.

May Bring Physical Exams of Employees

How far this doctrine will require hospitals to make physical examinations of their employees is not certain, but it is a reasonable requirement that they should make such examinations or be liable for the consequences. How far does this rule apply to physicians? A hospital has a right to assume that a license to practice medicine, given by the state, is sufficient to warrant employment, and in the absence of any knowledge to the serious detriment of such physician, the hospital ought not to be held liable. If, however, there is evidence which, through a reasonable degree of care should be in the possession of the hospital managers, that a physician licensed to practice is incompetent, then the hospital ought to be held liable for his acts.

Should the hospital be liable for physicians whom it selects on a closed staff? Probably so, if the physicians on such staff are selected by the trustees, or with their approval. If a staff physician operates upon a charity patient who is the patient of the hospital, then the hospital should be liable, unless such physician were chosen with due care. In the case of private patients brought to the hospital by a member of the staff, the liability should rest with the physician himself.

The problems are much more difficult to contemplate in the case of a hospital with an open staff. So far as the patients of the hospital are concerned, there would be the same relationship as in the case of the closed staff, namely: That there would be liability if the hospital permitted a negligent physician of notorious incompetence to injure the patient. In such cases it would appear that the physician acts as the servant of the hospital. In the case of private patients brought to the hospital by a physician and treated as such, there should be no liability upon the institution.

SCHOLARSHIP FOR 1922-23 GRADUATE

To interest nurses in college and postgraduate courses, *The Trained Nurse and Hospital Review* has offered a \$200 scholarship to a nurse graduating from an accredited school between July 1, 1922 and July 1, 1923.

This scholarship will entitle the nurse to a year's study in some college or university, with opportunity to specialize in pediatrics, dietetics or any special field, or to study public health nursing in one of the large nursing centers. Her school advisers and the scholarship committee will aid the nurse in selecting the best environment for study.

The award will be made by a scholarship committee composed of representative nurses on the following bases: standing of the applicant in her class; standing among other graduates of the state as represented by state board averages; estimate of fitness furnished by applicant's superintendent of nurses; estimate of fitness based upon the committee's grading of a 3,000 word thesis on a phase of the subject in which the applicant desires to specialize.

RECENT LEGISLATIVE PROPOSALS AND JUDICIAL DECISIONS

By DOROTHY KETCHAM, ANN ARBOR, MICH.

THE legislative proposals and enactments of a given year are not for the most part available for current publication. The number of bills introduced is in no way indicative of those which will pass. Some may be termed purely personal, others are much more comprehensive in character.

The following bills introduced into the Michigan legislature are cited only as typical. It is practically impossible to publish a current comprehensive index of such proposals for all states without the organization of a complicated and expensive machinery beyond ordinary means. Upon the publication of laws, from six to nine months after the close of the session, it is simpler to ascertain the legislation of interest to and affecting hospitals.

Michigan House Bill 269 amends the act permitting counties to establish and maintain public hospitals. A second bill SB 205 relates to the election or appointment of trustees or directors in certain hospitals requiring that "not less than one-fifth of the total number of such trustees or directors shall be experienced physicians or surgeons and graduates of a reputable college or school of medicine." It is provided, however, that no physician or surgeon who is a member of the staff shall serve as a trustee or director.

Would License Laboratory Workers

SB 150 was introduced to prohibit the maintenance of hospitals, nursing homes and places of refuge within 1200 feet of any public school.

One proposal, SB 131, provides for the examination, licensing and registration of persons engaged in laboratory work. Standards for the qualifications of the chemical pathologist, serologist, bacteriologist, chemist, laboratory assistant and technician are stated. A laboratory assistant is required to have a recognized high school diploma or an equivalent credential and two years of college training in sciences, preferably those embracing the fundamental medical sciences, i. e., histology, physiology, physiological chemistry and bacteriology, or two years' experience in a recognized clinical laboratory.

The problem of exempting hospital property from taxation is a difficult one involving a number of different factors. When the constitutional provision permitting exemption is of general character, then the legislative enactments may still establish some limitations. The proviso may be made that the property of hospitals *necessary for the use* of such institutions shall be exempted from taxation and buildings or houses appurtenant thereto.

Would Limit Tax Exempt Hospitals

A proposal in Michigan, HB 276, proposes to limit those classes of hospitals which are exempt from taxation and certain conditions of exemption are prescribed. First, "unless such hospital admit as patients *any* and *all* persons making application therefor in a suitable or proper manner, and who shall offer to pay the fixed charge and expenses for care, treatment, medical or surgical attendance, in all cases where there shall be such vacant space or facility therein as may reasonably be required for the same—." It is provided, however, that treatment for disorders or diseases "for which the hospital does not

provide the necessary adequate facilities" does not come within the provision of the law. Secondly, the hospital must permit each person admitted to be attended or cared for by his own physician. In the third place, the hospital must render a certain proportion of its services for charity, that is, not less than six per cent of the total number of persons admitted to such hospitals as patients.

This last bill has been introduced in somewhat similar form into other legislatures. On the face of it, it can scarcely be defended. Perhaps the outstanding difficulty is evident in the provision for an open staff. If a hospital is legally bound to exercise due care in the selection of its servants, then the promiscuous admission of any person practicing precludes the possibility of careful selection and control of clinicians.

Taxable Exemption of Church Properties

The problem of the taxable exemption of certain properties was passed upon recently by the supreme court of Illinois. It is pointed out by the court that all property is subject to taxation, except such as the constitution exempts.

The title to certain property on April 1, 1921, was in a Catholic church organization of Centralia, which organization was incorporated November 28, 1919. Prior to that time the title had been in the bishop of the diocese. On April 8, 1922, the hospital was organized as a corporation, and the hospital property turned over to it by the church organization.

From the records it was shown that, following public subscriptions, the hospital was constructed in 1908. The organization was conducted under the care of Sisters, known as Poor Handmaids, who take all the sick that are brought, no matter of what color or means. Various amounts are charged according to the ability to pay. The state contended that the hospital property was property of the church not used for religious purposes, and that when charges were made for its use by "the charitable institution without profit," severed from its relation with the church, it is subject to tax, the same as a tenement house or church parish used for religious purposes.

It has been held in a number of cases that in order to be exempt from taxation because used exclusively for religious purposes, the property *must, in fact, be used for such purposes*. Under the recent case of *People vs. Muldoon* it was decided that certain property was not held at the assessment of these particular taxes for religious purposes, and therefore the property could not be exempt. To be exempt the property must come clearly within the provision of the law, or in other words any tax exemption, statute or provision, will be strictly construed.

The further point was raised that as a matter of right and justice the property should be exempt because, while at the time of the levying of the tax it was owned by the church organization, it was equitably owned by the hospital organization. Under a previous ruling, *People vs. Toulon, 133, NE. 707*, the property was held not to be exempt.

The court in the Muldoon case, referred to above, held that a monastery of Catholic nuns, who have renounced all the affairs of the world and all connection therewith

and are devoting their lives to prayer and worship, was not exempt from taxation as a "place used for religious purposes" because the primary use was that of a residence. The fact that there are a number of nuns engaged in prayer and meditation and following the same practices of penance and contemplation is of no importance, since the number so engaged does not make that purpose a religious one which otherwise would not be. The nuns have no relation, near or remote, to the public, but are completely separated and secluded from the world, and are not in any manner connected with public worship, religious instruction, or public religious observances. There is no ground upon which this property can be placed on a different footing from the residence of a priest, rector or pastor, and it is settled that such property is not exempt." *People vs. St. Mary's*, 137, NE 865.

To Admit X-ray Photos as Evidence

The problem of admitting x-ray photographs as evidence was recently passed upon by the supreme court of Illinois. As in the case of camera pictures, x-ray plates must be verified as a true representation of the subject seen. "Like other photographs, they cannot be received as evidence until proper proof of their correctness and accuracy is produced. . . . It must be established by competent evidence that the picture portrays the condition it purports to represent before it has any place in the case. Some witness must be able to testify that the picture offered in evidence shows accurately what the witness saw when he looked into the body with the fluoroscope or he must be able to say he is skilled in the use of the x-ray machine and in the taking and developing of x-ray pictures, and that he took the picture offered in evidence with the body in a certain position (describing it), with a machine which he knew to be in good working condition and accurate, and that from his experience he was able to say that the picture produced by the machine was an accurate picture of the internal condition of the body." These methods of establishing the accuracy of the picture are not exclusive, but, whatever method is used, its accuracy must be established before it is admitted.—*Sevents vs. Illinois Central Railway Company*, 137, NE 859.

Judgment Against Hospital Society

The action, which was determined by the supreme court of Oregon, February 13, 1923, was brought to recover for money expended for medical and surgical treatment and hospital services while under contract with the defendant to furnish the same. The plaintiff was to pay a certain sum monthly for which certain services would be supplied. It seems that October 26, 1919, the plaintiff became ill and consulted Dr. Gillespie of the National Hospital Association. He received some pills and was advised to return in a few days. Later he returned saying he was a little better and that his back seemed "the main trouble." After trying to return to work and being unable to secure the services of the association's physician he secured another physician who took him to a hospital and operated, the fee for services being \$211. The patient's wife repeatedly notified the association of her husband's need for attention but received no service from them. From the testimony the court held that the jury "had a right to find that the defendant hospital association had refused to abide by the terms of the contract hereinbefore set forth." A number of technical points of law were raised which will not be here reviewed.

The decision of the circuit court was affirmed.—*Reed vs. National Hospital Association*, 212 Pac. 537.

Proposed Hospital Not Held a Nuisance

A suit was brought February 6, 1923, before the supreme court of Wisconsin to restrain the erection of a veterinary hospital. The court pointed out that a veterinary hospital was not a nuisance *per se* and refused to issue an injunction restraining its erection. "The general rule is that an injunction will only be granted to restrain an actual existing nuisance, but where it can be plainly seen that acts which, when completed, will certainly constitute or result in a grievous nuisance, or where a party threatens or begins to do, or insists upon his rights to do, certain acts, the courts will interfere, though no nuisance may have been actually committed, if the circumstances of the case enable the court to form an opinion as to the illegality of the acts complained of, and the irreparable injury which will ensue."

It was shown that every precaution to render the building sanitary and inoffensive was being taken.—*Wergen vs. Voss*, 192, NW 51.

Liability for Acts of Patient on Parole

The liability of the state was called to question before the supreme judicial court of Maine, February 9, 1923. It seems that on May 9, 1920, certain buildings were destroyed by a fire kindled by a former patient at the Bangor State Hospital for the Insane. The superintendent of the hospital is employed by the state and has general supervision of the inmates. It was shown that the patient at the time of commitment was suffering from dementia praecox, paranoid type. On April 25, 1920, he was temporarily allowed his liberty and given into the custody of Bessie M. Stanchfield, who was not a suitable and proper person to have the care and custody—a fact which Dr. Hedin knew or by the exercise of ordinary prudence should have known.

The action was brought against the defendant state in accordance with a legislative resolve authorizing the same. The various technicalities of law will not be discussed here. Negligence is defined as consisting "in the failure to observe that degree of care which the law requires for the protection of interests likely to be affected by the want of it. It is shown also that a person adjudged to be insane is presumed to continue as such until it is shown that sanity has returned." The question is raised as to whether Dr. Hedin was negligent in granting parole. "While the statute law provides that the superintendent of an insane hospital may permit any inmate thereof to leave such institution temporarily in charge of his guardian, relative or friend, or even by himself, for a period not exceeding six months, yet reason and good sense demand that such permission should not be given if the safety and welfare of the patient, or the community at large, are to be jeopardized by such permission. And it equally follows that the degree of care to be exercised in giving such permission should be commensurate with the particular nature of the patient's mental affliction and the possible or proportionate risk consequent upon his enlargement. There was evidence, if credible to the minds of the panel to sustain the view that Stanchfield was a dangerous man to be at large, that a reasonably prudent man—would not have paroled Stanchfield after so short a term of confinement. Parole under these circumstances must be regarded as an abuse of discretion."—*Austin W. Jones, vs. State*, 119, Atl. 579.

THE INFORMATION DESK

No satisfactory solution to a problem in your hospital is too trivial to pass on to other workers in the field. No question that perplexes you is too small to bring to the attention of those with greater experience in the field. This department is the readers' exchange, and its usefulness is dependent upon the measure in which its readers share their problems and their discoveries.

SOME SUGGESTIONS FOR NATIONAL HOSPITAL DAY

"Let us not forget in planning for National Hospital Day that the purpose of all hospital service is to alleviate pain and suffering," writes a correspondent aptly. "Let us not make of it a hilarious show, but an impressive, uplifting and educational ceremony that will cause the public to be thankful for the continued and successful application of our best thinkers and workers in the medical, surgical and nursing professions. Let us not lose sight of the sacrifices which have been made and are being made daily to reach a higher and nobler plane of service to those unfortunately afflicted by disease or mishap. The benefits we are privileged to receive in the care of the sick represent human sacrifice bravely, ungrudgingly and devotedly given. Let us make it a day of cheer for the sick, indeed, but with a sense of thankfulness and appreciation.

"Let us be careful that we keep uppermost in our minds and create in others an appreciation of the wonderful benefits available, thus broadening the 'hospital idea' in our communities and engendering a high regard for and complete confidence in our institutions for the sick.

"Let us not forget the original spirit and worthy aim back of the National Hospital Day idea which caused it to appeal to superintendents, resident and visiting physicians and surgeons, nurses and other executives who are giving of their best without thought of personal or monetary gain, but who wholeheartedly cooperate in an endeavor to obtain the appreciation and support of the substantial members of their communities on the basis of service."

ROTATION OF BROOMS

How a North Dakota hotel has effected a great saving in the replacement of brooms is told in a recent issue of *Hotel Management*.

The housekeeping department of this hostelry passes all the brooms through several departments before they are finally discarded. For example, brooms which are no longer suitable for use for sweeping rugs and corridors are sent to the kitchen; when they have outlived their usefulness in the kitchen they are relegated to the storeroom; when the storeroom discards them they are used on the concrete floors of the basement or on the sidewalks.

Before the brooms are at length thrown away, the handles are cut off, two or three of them are joined together and they are used for sweeping ceilings. With such systematic rotation, the item of brooms no longer fills such an important place on the expense list.

POWER PLANT RECORDS

Superintendents recognize the value of record keeping, but few of them have applied the practice to the hospital power plant. Accurate records of the daily performance of the power plant are essential to economical operation, says Henry Kreisinger in a technical paper recently issued by the U. S. Department of the Interior. By the study and comparison of such records any excessive losses can be found and proper steps can be taken to reduce them.

Some of the items of which records should be kept are discussed in the order of their importance and the ease with which records can be obtained.

(1) *Weight of Coal.*—Every boiler plant should record the weight of the coal burned. Each wheelbarrowful or cartload should be weighed as it is delivered to the firing room. If a boiler plant is operated at night the weight of the coal burned during the night should be determined separately, for it is at night when boilers are run with a light load that coal is burned most wastefully.

(2) *Weight of ashes.*—The fires and the ash pits should be cleaned at regular periods. When the ashes and clinkers are wheeled out they should be weighed and their weight recorded. Comparison of the weight of the refuse with the weight of coal burned gives valuable information as to the ash content of the coal.

(3) *Power developed by engine.*—If the steam is used only to generate electricity the net useful power developed by the engine can be obtained by a recording wattmeter. The weight of coal burned per kilowatt hour can be determined by dividing the pounds of coal burned by the kilowatt hours generated.

(4) *Weight of steam used for other purposes.*—The weight of steam used for other purposes than generating power can be determined by placing a recording steam meter in the line. Steam meters can be bought that are reliable to within less than five per cent.

(5) *Condenser vacuum.*—The average condenser vacuum should be recorded each day. The vacuum greatly affects the efficiency of the engine and must be considered when comparing the rate of coal consumption on different days.

(6) *Carbon dioxide in flue gases.*—The percentage of carbon dioxide in the flue gases indicates the amount of air used in the combustion, and the amount of loss in the chimney gases; therefore, if at all possible, a record of the

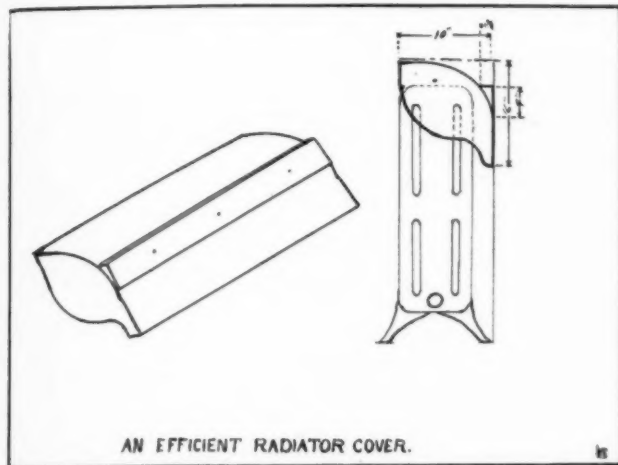
carbon dioxide should be kept. Carbon dioxide can be determined with an automatic CO₂ recorder or by analysis, with an Orsat apparatus, of an average sample collected during a day or half a day.

(7) *Weight of water fed to boiler.*—With a carefully weighed and frequently tested water meter placed in the feed line the weight of water fed to the boiler can be closely determined. By dividing this weight of water by the weight of the coal burned, the evaporation for each day can be computed.

(8) *Temperature of feed water.*—The average temperature of the feed water should be recorded daily. Every 10 degrees drop in the temperature of the feed water increases the coal consumption about one per cent.

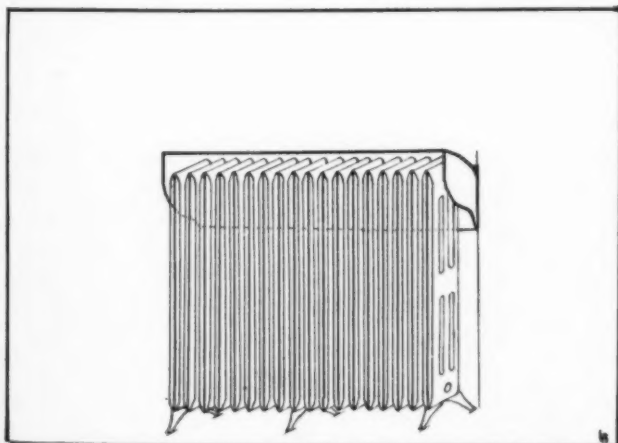
NO MORE DUST ABOVE RADIATORS

Michael Reese Hospital, Chicago, has solved to the satisfaction of its administrators the problem of dust deposits above its radiators.



AN EFFICIENT RADIATOR COVER.

Radiators that were placed in a room close to a bare wall invariably would collect all the floating dust in the room and carry it with the heat currents to deposit it on the wall above the top of the radiator. To overcome this, the hospital tried several standard radiator covers, but none of them seem to offer the correct solution to this particular problem.



Finally it was decided to design a radiator cover which would fasten, not to the radiator, but securely to the wall, thereby diverting the heat currents, laden with dust, back to the center of the room. Almost all of the radi-

tors in the hospital are now equipped with the special cover which is said to accomplish its purpose admirably.

HOSPITAL USES OF AMMONIA

The familiar household ammonia has a multitude of uses in the housekeeping department of the hospital. Dr. Alice M. Smith of Tacoma, Wash., has listed some of its hospital uses in a recent issue of *The Trained Nurse and Hospital Review*. Among them are the following:

Soak paint spots with equal parts of ammonia and turpentine. Repeat two or three times and wash out in soapsuds.

In removing machine grease spots, where the colors of the fabric would run, use a solution of cold water, ammonia and soap.

If too much blueing has been used in laundrying, add ammonia to the water, and it will bleach out the excess blue from the clothes.

Carpets, oilcloth and linoleum may be cleaned with a little household ammonia added to the water.

To remove varnish one quart of ammonia to six quarts of water may be used. Moisten the varnish in the solution and then scrub with a stiff brush.

To clean painted woodwork, use one tablespoonful of ammonia to one quart of hot water. Apply with a cloth without scrubbing. It cleans the surface easily and does not weaken the paint. For a hard-finished wall, use ammonia in proportion of four ounces to four gallons of water.

Ammonia and chloroform, equal parts, will remove old paint from wood.

Add ammonia to warm water and use for washing windows; polish with newspaper. A few drops of ammonia in water applied with a cloth will remove finger-marks from windows or mirrors.

Sapolo dissolved in household ammonia and applied with a cloth to bath tubs will remove stains and dirt. Marble can be cleaned with a strong solution of ammonia in water.

A solution of sodium bicarbonate, ammonia and warm water is excellent for cleaning hair brushes. Rinse in cold water to stiffen the bristles and dry—bristles down—in the air.

Diluted ammonia mixed with flour to a stiff dough may be rubbed on wall paper and pictures to clean them.

Gold and silver articles may be laid in aqua ammonia for a few seconds and then brushed with a soft tooth brush dipped in wood alcohol. Shake dry in clean fine sawdust. Another method is to make a thin paste of powdered chalk and ammonia. Smear over the articles and let dry. Brush off with a dry soft brush. For tarnished silver, use a paste made of ammonia and whiting. Rub the pieces with a cloth dipped in this paste and polish with a dry flannel cloth.

SPECIAL PAD FOR FIRST DRESSING

In place of gauze for the first dressing before the patient leaves the operating room, the Onondaga Hospital, New York, applies a sterile pad, especially designed for the purpose and held in place by adhesive plaster, says *The Trained Nurse and Hospital Review*. These pads are rectangular in shape and vary in size to suit the occasion, being very small and thin for face and scalp work, and larger and thicker for neck, chest and abdomen. They are made to fit any kind of incision, whether drained or closed.

NURSING AND THE HOSPITAL

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PAST AND PRESENT SOURCES OF SUPPLY FOR STUDENT NURSES

IT REQUIRES patience, and still more patience, plus courage of a high order, to listen to the glowing descriptions of the nurses of the good old days that are so frequently held up to us as shining examples of what present-day nurses ought to be and are not.

Apparently these nurses were good-looking, amiable, tactful, obedient and industrious to the nth degree, willing to work long hours, always satisfied with such living and working conditions as the hospital was able to provide for them, always cheerful, and last but not least, imbued with a proper reverence for their superior officers (and apparently there was no dearth of the latter). Probably every reader of this article has listened to such encomiums and can add a few additional virtues to round out the picture of this ideal creature.

How happy and carefree the managers of hospitals in those good old days must have been, for we are told there was never any shortage of these paragons! On the contrary, it appears as if they were clamoring for admission to nursing schools, for the annual reports always included figures showing that hundreds applied for admission, and only a pitifully small number were chosen. The writer remembers an eloquent commencement address that elaborated on this theme, emphasizing the rigid selection exercised in admitting candidates to nursing schools and the rigorous testing and weeding out of the unfit that went on all during the years of training, so that it was safe to assume the graduate students were indeed a superior group that measured up to very high standards.

Sources of Supply Always Taxed


There is much reason to believe that the figures quoted in annual reports were misleading, not intentionally so, but nevertheless they were so, because *letters of inquiry* and *applications for admission* are not quite the same, and it was the former that were usually counted. Then too, we question the severity of the *weeding out* practiced in the majority of schools. Every honest woman who has had even a limited experience as principal of a school of nursing realizes the truth of Miss Nutting's statement, that even back in the good old days at Johns Hopkins she retained every applicant that could possibly be developed into a nurse and had no surplus of sub-standard or rejected applicants to refer elsewhere.

However, the purpose of this article is not to discuss these questions but rather to examine into the sources of supply, i.e., to find out if we can from what classes, strata,

or groups the nursing schools drew their students, for despite all that is said about higher standards of admission and education, every principal knows to her sorrow, that the immature children applying for admission today are totally different from the mature, well-balanced and well-educated women that sought admission thirty years ago. Those of us whose experience goes back so far know how gradually but definitely the types have changed and how this change has been reflected in increased difficulty in every department of our work. Indeed a generous share of our troubles today is due to the fact that the Nightingale system was planned for women of mature growth (twenty-three to twenty-five) and we are now dealing with eighteen-year-old girls, and in some instances birth certificates might show even this age had not been attained. It is true we still have a few applicants of mature years, but very few indeed, and from all that can be learned the number is steadily decreasing.

The oldest school of nursing in this country has recently celebrated its fiftieth anniversary, and several other schools are nearing the time for similar celebrations. Inquiry among the early graduates of these schools brought out two striking facts. First in those good old days the gainful occupations open to women were very few. Always one finds marriage at the head of the list, then teaching. But there is abundant evidence that many capable women were not successful in securing husbands to support them, nor teaching positions to fill. Consequently, there were many "unclaimed blessings," as they were called by their friends, or varied and colorful names by those who were not friendly. However, these maiden aunts were very useful members of society, and today many of the problems of family life are much more difficult to meet, just because there are no maiden aunts to nurse the sick, meet emergencies, serve as substitutes, and do all the other unclassified things that maiden aunts seemed specially provided to do. To this great army of unmarried women nursing made a tremendous appeal, because it opened up opportunities for independent careers, and it was an easy transition from the nursing that filled much of their time in the homes, to the nursing in the hospitals. Added to this there was in many instances a strong flavor of religion or of romance that helped to put a halo around the head of the venturesome woman who attempted "such noble, self-sacrificing work."

The success of the early schools, and even more the opportunities that opened up for the early graduates of



these schools, were so striking that for a period nursing made an irresistible appeal not only to women in the homes, but also to members of the teaching profession. There was a period about thirty years ago when entering a nursing school was really quite the proper thing to do. In other words it was stylish, and that means a seal of approval that is sadly lacking today. True, the immediate members of the family might have objected—they usually did—but nevertheless they were very proud of the initiative and courage shown by those who persevered. It was very unusual to hear of a student nurse becoming discouraged and giving up her work. That did not fit the ideal at all, and the hospitals benefited greatly by these conditions.

Moreover, the monetary returns were better than they are today. Despite all we hear of the profiteering done by nurses and the high prices charged by them at the present time, the truth of the matter is, the fees charged thirty years ago had a much greater purchasing power than the higher fees charged today. In many instances nurses were more highly paid than teachers or any other class of women workers. "At the present time," to quote Dr. Beard, "plumbers, steam-fitters, carpenters and bricklayers draw quite as high wages as the nurse."

It was during this period that numbers of Canadian women entered American schools, and the schools in the north drew heavily from our own southern states. Year after year prominent schools had their classes filled by Canadians and Southerners, with few if any students from the city in which the school was located. Many principals were opposed to admitting students whose homes were conveniently near the hospital. Such a happy arrangement was not conducive to the spartan endurance that was an ideal of those days. Then too, many hospitals, particularly the state hospitals, benefited tremendously by the influx of the better type of English, Irish, and Scotch girls who came to this country in such numbers. They were a sturdy, dependable, adaptable type, with a fundamental education that was sound and thorough so far as it went, and a fund of cheerful optimism that helped them to surmount many difficulties. Only those who have worked with this group realize how valuable they were, or how much they contributed to the upbuilding of many types of institutions.

Regardless of where they came, practically all of the women entering nursing schools were from homes where they had been accustomed to do their share of the work. An outstanding ideal of those days was that young women should be educated to be good housekeepers, including the arts of cooking and sewing. Consequently they were skillful with their hands, and took very readily to nursing tasks.

All Occupations Now Open to Women

Compare these conditions with those of the present day. First, how many occupations are open to women, or a better way to put it might be—how few are not inviting and offering inducements to women to enter? Secondly, girls do not stay at home to develop into maiden aunts willing to carry the family burdens of housework and nursing. On the contrary it is quite as customary for the girl to fit herself to earn her own living as it is for the boy and if the maiden aunts render help it is more often money than service. Thirdly, Canadian and southern girls enter hospitals near their own homes, because the hospitals and schools in both Canada and the south have made such tremendous strides that they compare favorably, indeed in some instances have outstripped, some of the older hospitals and schools of the north and east, a task rendered easier by the willingness of some of our older institu-

tions to rest on their laurels, and bask in the reflected glory of a reputation earned years ago. At the present time there is no incentive for a Canadian or a Southerner to incur the expense and adjustment incidental to entering a school remote from her own home. Fourthly, the type of immigrants is strikingly different from what it was even fifteen years ago. The present tide of immigration is almost entirely from southern Europe, from the Latin countries where nursing is looked upon as suitable work for a religious person or a Magdalene, but not as a professional career worthy of the best type of young women.

So strong is this attitude that it carries over to the second and third generation born in this country, as anyone will find who will take the trouble to talk to a group of this character in any of the high schools located in sections where these people predominate. It is disconcerting—extremely so—to encounter this attitude, unless one is prepared for it and able to meet it. Just here an amusing incident comes to mind. A hard-working Italian tailor in a very unpretentious shop was telling the writer of his daughter's graduation from high school and of his desire for her to go to college. It was suggested that she should enter the five-year nursing course, and the indignation of the old man was pathetically funny. His daughter for whom he had worked and saved in order to give her an education, become a nurse! It would be disgraceful! After much careful explaining he ended by shrugging his shoulders and stated that Italians did not think that way. And yet this man has known and worked for many nurses for years!

High School is Chief Source

All of this seems to indicate that the only available source of supply for the nursing schools of today is the young women of the community which any given hospital serves. And because the number of girls completing high school is steadily increasing, and the average girl finishes high school at eighteen years of age—which to the horror of some of our older principals is the prevailing entrance age to schools of nursing—it would seem that the high school girls are the ones we must draw upon in sufficient numbers to meet the needs of the community not only for hospital service, but for all the graduate work required. By this it is not meant that graduates of other types of schools of equal grade should be disregarded but, by and large, our main source of supply is the high schools. In several cities it has been found that the number graduating from high schools each year and the number required to fill the classes of the nursing schools bears the relation of ten to one. Hence the problem in these cities (and I believe the same will be found true in other cities) is to attract one-tenth of the high school graduates to the nursing schools. How is this to be done?

Unlike our predecessors who scorned the applicant whose home was near the hospital, we are going into the high schools presenting the opportunities in the nursing field, and having what we offer compared with what the representatives of other professions, vocations, and commercial life offer. Those who have tried to do this know that an average group of high school students can be rather sharply divided into two groups: (a) those who are seeking work of any kind provided it brings in what they consider big monetary returns; and (b) those who are seeking further education and preparation for some definite kind of work. Nursing always appeals to the maternal instinct in all girls and usually a fairly large number is interested and seeks further information. Naturally the girl seeking an immediate monetary return can-

not consider it, for even the nursing schools that have doubled the allowance paid student nurses offer a pitifully small sum in comparison with the amount which can be earned in many other kinds of work.

Must Make Educational Appeal

To the second group nursing makes a very definite appeal providing it is put on an educational basis. To my thinking it is this group to whom we must appeal and from which we must draw our students. No amount of earnest seeking discloses any available group of young women comparable to the maiden aunts of forty, thirty and twenty years ago, or the better type of immigrant girls from northern Europe. Neither does earnest seeking disclose any group willing to accept hard work, long hours, and unsatisfactory living conditions just for the privilege of serving the needs of the hospital. Even a religious appeal does not seem as potent as of old, for one finds many appeals for additional candidates for religious orders that have survived many centuries and today are seeking for new members.

Does this mean that the girl of today is more selfish and less willing to serve than the girl of long ago? Most emphatically *no*, but she is very different, actuated by different ideals, and living in an entirely different environment. She is seeking to fit herself for the fullest, most satisfying and most adequate life. She wants the best preparation she can get, and then she is capable of rendering the highest type of service and living up to the loftiest principles of self-sacrifice. But she will do her own choosing and sacrifice herself according to her own ideals, not according to the ideals that dominated Victorian England when Florence Nightingale founded the first school in St. Thomas' Hospital, London. Of course these same ideals dominate a great number of our nursing schools today. In other words the ideals of the young woman of today are totally different from what they were even before the war, and there is no greater prospect of a return to pre-war ideals, then there is of a return to pre-war prices.

Girl of Today Seeks Self-Development

Without question the girl of today seeks self-development first. Accordingly we must put the emphasis on education and make the educational content of preparation for the nursing profession as rich and satisfying as that of any other profession. Just recently a woman of rich experience as the successful principal of one of our best schools of nursing said, "She who chooses nursing is in all essentials a young woman of her time." Some people forget this and waste valuable time bemoaning the difference between the girls of today and the girls of long ago. After all the girls of today are the ones we have to work with, and our problem is how to present nursing to them, and how to educate them to become the best and most adequate nurses possible.

FAVORS FEDERAL HOSPITAL BUREAU

In several recommendations accompanying its report on the provision of hospitals for war veterans made to the Sixty-sixth Congress, the White Committee, composed of four consultants on hospitalization, favors the establishment of a federal bureau of hospitals. This report of Drs. William Charles White, Frank Billings, George H. Kirby and Mr. John G. Bowman covers the complete program of these four consultants, some historical facts of interest regarding the hospitalization of ex-service men in this country, and the following recommendations:

1. The hospital problem of the United States is of

sufficient importance to the country to be a subject of continuous study in some office of the federal government.

2. Such office should keep a record of not only the hospitals of all departments of the government, but all state, municipal, and civil hospitals, and should have charge of the preparation of charts showing location, size, character, and use.

3. Such office should be the center of advice on (a) location of hospitals; (b) expansion of existing hospitals; (c) the preparation of standard plans for hospital buildings of different types, and for auxiliary buildings for power plants, kitchen, mess hall, storage, and recreation; (d) standards of equipment; (e) standards of personnel numbers and quarters; (f) comparative costs of construction, maintenance, and operation.

4. Location and enlargement of hospitals should be based on such sound principles as (a) movements of population; (b) functions of government; (c) future use of buildings; (d) railroad facilities; (e) medical and nursing facilities; (f) federal relation and assistance to state, municipal, and civil health functions, especially in the matter of education of technical agents; and (g) uniform care of the citizens of the United States; and not upon the influence of individuals or local interest.

5. Standards for construction, equipment, and personnel should be changed from time to time as knowledge grows and conditions alter. If these were kept up to date they would be of great economic value, not only to the United States government but to the various state and municipal governments and to private institutions.

6. It is apparent, as a result of this period of hospital construction by the United States government, that there will be a greater number of hospitals than can be utilized for the purpose for which they were built. Their future economic use should be a matter of constant study. To abandon them, to maintain them below a certain percentage of occupancy, or to put them to a use for which they are not adapted will be wasteful. There are, however, three avenues of disposition which suggest themselves when use for hospitalization of war veterans is no longer necessary: (a) The transfer to the National Home for Disabled Volunteer Soldiers to be used for domiciliary care, for which the hospitals are admirably adapted; (b) the transfer to the U. S. Public Health Service for marine hospital bases, especially in the great shipping centers; (c) the sale or transfer to the states in which located as part of the health and welfare equipment of those divisions of the country.

7. Some plan of cooperation between the federal government and the various states in the use of hospital facilities should gradually be evolved which would lead eventually to guidance and assistance by the federal authorities in making uniform hospital practice over the whole country.

8. Hospital construction should be combined with other federal construction and engineering work in one department. The continuance of a federal board of hospitalization, similar to that now in existence, should be retained as a consultant body under budget provision.

Personality is not a gift of the gods to a chosen few. It is a power that lies within the reach of everyone, and which is quite as capable of being developed as the mind. It is a combination of qualities, each in themselves teachable and learnable, which, when so thoroughly absorbed by the individual as to become a fixed part of his being, is expressed by him freely and without offense to the ears, eyes, and the good tastes of the worth-while persons with whom he comes in daily contact.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU G. GRAVES,
Supervising Dietitian, Mt. Sinai Hospital, New York.

THE FATS IN THE HUMAN ECONOMY*

By HERMAN SCHWARZ, M.D., NEW YORK.

BEFORE taking up the question of the fats in the human economy, it might be wise to give a brief outline of some of the chemical facts known about fats.

All substances soluble in ether are roughly termed lipoids and most of us are using the term lipoids to cover all sorts of fatty substances. These lipoids as far as they interest us may be divided into fatty acids, soaps, neutral fats, cholesterol and phospho-lipins.

Fatty acids are soluble in ether and insoluble in water; they may be either saturated, unsaturated or volatile. Saturated they are a still higher series of the acetic acid type, such as palmitic acid, $\text{CH}_3(\text{CH}_2)_{14}\text{COOH}$, or unsaturated, an example of a lower series of the acetic acid type, such as oleic acid, $\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}(\text{CH}_2)_7\text{COOH}$.

Fatty acids plus alkali form soaps (which are soluble in water).

Fatty acids plus alcohol form an ester, such as cholesterol containing no phosphorus or protein.

Fatty acids plus glycerin form neutral fat called tri-glycerides.

Neutral fat plus phosphorus forms phospho-lipin or lecithin.

The neutral fats are the natural form in which the fats are stored in the body. These are made up of three principal fatty acids; palmitic acid which, as seen from above, mixed with glycerin makes the fat called tri-palmitine.

Stearic acid mixed with glycerin makes the neutral fat called tri-sterin. Oleic acid mixed with glycerin makes the neutral fat called tri-olein.

The differences between these neutral fats and fatty acids are very great and can be determined by various tests, such as the melting point test. This is the point which is reported by a thermometer at the exact amount of heat at which the fat is liquid. Thus:

Oleic acid is liquid.....	at 0° C.
Palmitic acid is liquid.....	at 62.6° C.
Stearic acid is liquid.....	at 69° C.

Therefore any fat containing a mixture of these three different neutral fats or fatty acids is liquid or solid according to the amount of these various fatty acids which it contains. Thus mutton fat is stiffer and harder than pig's fat because it contains more stearic acid and it is only at 69° C. that it is liquified.

Iodine attaches itself to the unsaturated fatty acid and thus the amount of iodine taken up in a mixture of fats

gives us an idea of the amount of unsaturated fatty acid present. Reichart Meisel value shows the amount of volatile fatty acid present.

Quantity of Fat to Be Ingested

The quantity of any of the food stuffs to be ingested in twenty-four hours is always of interest and value in making up a balanced ration. This was of more value from the standpoint of economy and conservation during the war. There was therefore an inter-allied scientific food commission, appointed, consisting among others of Graham Lusk, R. H. Chittenden, the English physiologist, Starling, Ormsby and Mendel. They studied the maximum and minimum fat requirement of a human being and came to the conclusion that, strictly speaking, there was no physiological minimum of fat in an otherwise abundant diet.

The development of the intestine, however, of which we will speak later, makes it necessary to supply a considerable portion of fat in the food. Dietitians know moreover that the amount of fat used in the diet depends to a certain extent upon culinary and psychological reasons. The taste of the food is not pleasing without it. However the Japanese, as you know, use little or no fat in the diet. Yet it is known that fat when it is reduced to a minimum in the diet, certainly diminishes the energy and available work of the individual.

The commission came to the conclusion that the daily ration of fat in man was 75 gms. per day or 2.5/8 oz. or 700 calories, about one-quarter of the total caloric requirement. An active lumberman uses 388 gms. or 13 1/2 oz. An infant at the breast takes 1 1/2 to 2 oz. of fat per day, about 50 per cent of its caloric intake in order, as you will see later, to spare its protein.

Influence of Fat on Metabolism

In a fasting animal which still has fat in the body, the giving of 0 gms. to 300 gms. of fat has no influence upon the protein metabolism.

0 gms. fat given there was 11.9 gms. Urea excreted
100 gms. fat given there was 12 gms. Urea excreted
300 gms. fat given there was 12 gms. Urea excreted

In other words, the fat ingested was simply burned and spared the body fat and protein. In man without starvation the additional fat increases the metabolism 9 to 14 per cent during the seventh hour; 6 to 8 per cent during the eighth hour after ingestion. After the ingestion of fat the heat energy rises until the sixth hour above the basal metabolism rate. This corresponds to the

*Paper read before the dietitians at Mount Sinai Hospital, New York, February 19.

amount of fat in the blood as shown by the following table:

Fasting blood fat equals.....	0.6 %
Given olive oil after 3 hours equals.....	0.73%
Given olive oil after 6½ hours equals.....	1.20%
Given olive oil after 8 hours equals.....	0.87%

so that the increase of fat in the blood corresponds pretty well to the increase in energy derived from the ingestion of fat. It has been shown that less protein is burned in starvation when the body is fat. It has also been shown that nitrogen equilibrium can be obtained by giving 3½ times the protein which is burned during starvation. If you take the basal metabolism during starvation you will get the amount of protein consumed, which is obtained from the animal's own tissue. If you give three times that amount of protein you will find that the animal will excrete and take in the same amount of protein; in other words, he is in protein equilibrium. Now give this starving animal fat and instead of 3½ times the protein necessary to keep him in equilibrium, only 1.6 or two times the amount will be necessary. This shows the way in which fat spares the burning up of protein. This will be even better seen by the table taken from Lusk.

INFLUENCE OF FAT INGESTION ON NITROGEN RETENTION

Food			Metabolism	
	No. gms.		No. on Excretion	No. In Body
23.6	99	260	26.35	3.64
23.5	195	221	21.50	1.85
23.0	214	226	18.50	4.13
23.4	350	234	17.00	5.75

Nutritional Value of Fat

In addition to the ordinary energy value and culinary value, we have another important function of the fat as far as this nutritional value is concerned, and that is its vitamin content. As you know, some fat contains a vitamin called fat soluble A. Just what diseases are caused by the absence of this vitamin is not germane to this subject. However, it is important for dietitians to know the amount of this fat soluble "A" in the various fats. As you know, fish and meat fats contain considerable quantity of this vitamin. Coconut, cotton seed oil and vegetable oil do not contain this vitamin. Nut oils also do not contain it. Therefore an investigation by W. D. Halliburton and J. C. Drummond¹ of the margarine made of the various fats showed that beef fat and oleomargarine contain this factor and are thus equal in nutritive value to butter. Margarine made from coconut oil, cotton seed oil, vegetable oil and nut oil do not contain this factor and thus are not equal in nutritional value to butter.

Many studies have been made from many standpoints of the digestibility of the various oils and fats. L. F. Langworthy and A. D. Holmes² investigated the relationship of the hardness of fats (their melting point) and their digestibility. Liquid oils are hydrogenated in order to harden and to increase their melting point. Butter fat, lard, beef fat and mutton fat were investigated. From the table it will be seen that fats of a low melting point have a slightly greater degree of digestibility, but their utilization is as good as any. The digestibility of other portions of the ration is the same with any fat.

Fat Studied	Co-Efficient Melting Point		Digestibility of other portions of ration
	of Dig.	Degree C.	
Butter fat	97	32°	93 —
Lard	97	35°	92 —
Beef fat	93	45°	91 —
Mutton fat	86	50°	93 —

The conclusion is that fats of low melting point have a slightly greater degree of digestibility, but their utilization is good as any.

Fat is the article of food that remains longest in the stomach and provokes the greatest outflow of gastric juice. Just why this is so is not known, but it is an accepted fact that a meal rich in fat stays in the stomach the longest. The question that has been investigated for a long time has been whether any fat is digested in the stomach. The researches of Sedgwick³ and Heinsheimer⁴ have proved that a fat splitting ferment exists in the stomach and that fat is split up to the extent of about 25 per cent, but that does not mean that the gastric mucosa absorbs any of it and passes it into the system. In fact, von Firth doubts if any of it is absorbed by the stomach but it is well mixed and emulsified. With the rest of the stomach content the fat is emptied practically unchanged into the small intestine.

There it is mixed with the bile and pancreatic juice and is prepared for the body. In the pancreatic juice there is a ferment called lipase for its property of being able to split up neutral fats, or tri-glycerids, into fatty acids and glycerin. The alkaline reaction of the upper part of the small intestine further changes some of the fatty acids into soap, and in this form, that is in the form of fatty acids and soaps, they can be taken up by the epith cells of the small intestine. It has not been proved that the neutral fats, as such, can be taken up by the cells. The bile alone has no action whatever upon the fats, but it does act upon the lipase, increasing its activity many fold. In other words, it acts as an activator upon the ferment. Furthermore, the bile increases the solubility of the soaps. The bile salts in the bile seem to be an activating factor. The absence of the pancreatic juice diminishes fat digestion by 50 to 60 per cent, as seen in cases of pancreatic duct fistula. Absence of the bile diminishes the digestion of the fat 80 to 90 per cent, as seen in cases of congenital obliteration of the bile duct in new-born infants. It will be seen, therefore, that absence of the bile is of greater significance than the absence of the pancreatic juice.

Fat Transport in the Body

It will be seen then that the fat now is ready to be taken up by the cells of the small intestine. Leucocytes gather about the epithelial cells. The fatty acids and soaps may be seen in these cells but in the form of neutral fats; that is, these cells have the property of synthesizing these fatty acids and soaps into neutral fats again. They may remain some time and from there go into the lacteals, and from the lacteals into the thoracic duct and this, as you know, enters the blood stream. What happens to the fat in its transport from the lacteals to the thoracic duct is not known, except that before passing out of the epithelial cells it is reduced to invisibility. The leucocytes carry the fat to the lacteals. However, only about 60 per cent of the fat in the intestinal wall is recovered from the thoracic duct. What happens to the other is not known; whether fat directly enters the blood stream without the passage through the thoracic duct has not been proved.

Clark and Clark have shown by experiment that if you inject fat into the tail of a tadpole, lymphatics and leucocytes carry the fat away, but no fat gets into the blood capillaries. This may or may not prove that some of the fat enters the blood stream direct from the intestinal wall. From the thoracic duct, pure fat is injected into the blood stream and can be seen by the darkfield microscope as fine particles which are called hemiconia. The fat, perhaps, enters the corpuscles where lecithin is formed, but it soon enters the plasma of the blood and is

1. Journal Physiology, 50, 35, 1917.

2. Bulletin 310 and 136, U. S. Dept. of Agriculture.

3. Jahrbuch für Kinderheilk, 64, 1906, 194.

4. Deutmedwoch, 1906-1194.

transported throughout the body, first, into the various fat depots, second, to the liver, and, third, to the tissue cells. The fat as it exists in the blood makes up about 0.7 per cent; of which fatty acids make up 0.4 per cent, lecithin 0.3 per cent and cholesterol 0.2 per cent. In many diseases, this fat in the blood may be increased, for instance, in starvation, anemia, diabetes, chronic alcoholism, phosphorous poisoning, anesthesia and other toxic conditions.

Destination of the Fat

These various fats, the depot fat, the liver fat and the tissue cells fat are different from one another, as can be seen from an analysis of their fatty acid content.

Depot fat equals.....	95% fatty acid.
Liver fat equals.....	75% fatty acid except during metabolism and then it is depot fat.
Tissue fat equals.....	60% fatty acid.

The principal fat depots in the body are: (1) the subcutaneous tissues; (2) the retroperitoneal tissues; and (3) the bone marrow. This depot fat comes partly from the fat in the food and partly from the carbohydrates ingested. That it comes from the food fat can be shown from the well-known experiment of feeding a dog with mutton fat. You will remember that the melting point of mutton fat is high, 50° C. and thus easily recognized. After feeding the dog for some time with mutton fat and then killing him, you will find the dog a dog in sheep's clothing, for his entire subcutaneous fat will have the high melting point and will really be mutton fat, thus proving that the mutton fat as such was deposited in the dog's subcutaneous tissue. That carbohydrate can be transformed into fat was shown by the old experiment with the pig. Two pigs of equal weight and size were taken from the litter, one was killed and an accurate estimation of the fat in its body made. The other was fed upon a pure carbohydrate diet, absolutely no fat in the food, and yet when he was killed after a certain length of time his fat was much in excess of the other pig's fat.

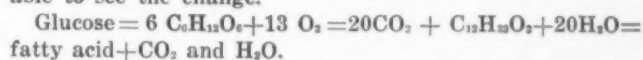
The subcutaneous and retroperitoneal fat serves as a protector against cold, prevents radiation of heat and prevents trauma to many of the internal organs. It becomes used up during starvation and fever. It is carried by the blood to the liver and made available to the body. While in its depot the energy is locked up to be liberated by the liver. Ninety per cent of the depot fat may be used up in starvation. Just how the fat from the depot gets into the blood stream is not known.

The liver is a half way house in the metabolism of fat. During the process of digestion the liver fat is in part derived from the food fat. This can be shown by putting another distinctive fat, such as coconut oil which is very volatile and easily recognizable, into the intestine of an animal, then after a few hours killing this animal; some of this coconut fat will be found in the liver. However, some of the liver fat is also depot fat, especially during starvation and in some diseases, such as phosphorous poison or other obscure forms of liver degeneration. This is shown by starving an animal, giving him a marked fat and then poisoning him. It will be seen that the depot fat contains the same marked fat as the liver fat.

	Higher fatty acid % dry weight	Iodine value
Normal fat in liver.....	13.7	116.8
Commencing fatty change.....	25.	96.0
Markedly fatty liver.....	70.	69.

The changes which occur to the fat in the liver can be observed by determining the iodine value, that is the degree of saturation of the fatty acids in the liver. It will be seen that the liver has the power of desaturation. The fatty acids are more easily broken up and lecithin and other compounds formed.

From the previous experiment cited we have seen how sugar is converted into fat. This is very difficult to show chemically, but from the following formulas you will be able to see the change.



The glucose is oxidized and broken down into a number of molecules. Carbon dioxide, fatty acids and water are formed. The oxygen used in this process is stored up in the fatty acids, which is the reason why fatty acid contains more energy and heat units than carbohydrates, and one gram of fat equals 9.3 calories, and 1 gm. of glucose only 4.1. In a normal body this change is very transient and rapid, and cannot be measured or proved. In pathological processes, however, such as starvation or diabetes, this change may stop anywhere. The first one is that butyric acid forms, and then BOxy butyric acid, later aceto-acetic acid, finally acetone.

NEWS ITEMS

Two members of the class of 1922, University of Illinois, are to be found at the Toledo City Hospital. Miss Madge Lincke has been there some months, and Miss Eugenia Martin recently accepted a position there.

Miss Lucile Dunham has resigned her position at Flower Hospital, Toledo, and expects to spend some months at her home.

Miss Mary Rhoads has given up her work as dietitian with the Tuberculosis League of Pittsburgh and will take a long vacation at her home in Boyertown, Pa.

A new assistant dietitian at the Post Graduate Hospital, New York, is Miss Lowell who recently gave up her work with the department of health.

The new head of the department of dietetics at Lucas County Hospital, Toledo, is Miss Gertrude Bretz.

Dr. H. O. Pollock, biological chemist at Mercy Hospital, gave a lecture on "Basal Metabolism" at the March meeting of the Allegheny County Dietitians' Association held at Mercy Hospital, Pittsburgh. Demonstrations and an explanation of the operation of a gasometer accompanied the lecture. The usual round table discussion and social hour followed.

"Home Talent Night" of the Chicago Dietetic Association took place at the February meeting following the announcement that Miss Agnes Gleason, manager of the Parkway Tea Room, would not be able to fill her engagement to speak. Miss Smith, dietitian at Presbyterian Hospital, gave a detailed outline of the lessons in diabetic food preparation given patients at that institution. The course includes the cooking of vegetables, washing bran, preparation of diabetic breads and desserts. Miss Anna Boller and Miss Chambers gave a report of the medical meeting at which the discoverers of insulin spoke. Miss Straka and Miss Smith of Presbyterian Hospital and Miss Taft of Wesley Memorial reported on some cases which had received the treatment at their institutions.

The second annual meeting of the Ohio Dietetic Association at their institution will be held at Memorial Hall, Columbus, on May 22-24, it is announced. The March meeting of the association was held at the Maternity and Children's Hospital, Toledo, on March 7. Miss Lulu Sidwell of that institution spoke on the diets she uses for her patients, after which the dietitians were taken on a trip over the hospital and luncheon was served. Miss Helen Mallory of Mount Sinai Hospital, Cleveland, at the afternoon session discussed the scheme she uses in arranging menus. A short business session followed and a number of dietitians were elected to membership.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Director
Mt. Sinai Hospital, Cleveland, Ohio

WHAT WOULD THE HOSPITAL DO WITHOUT PAPER?

BY WILL ROSS, MILWAUKEE, WIS.

WHEN, in the midst of war's alarms, over the cables came the news that the Germans were making clothing—both the upper and the nether wear—out of paper, people stopped their labors to exclaim, "What next will they make out of paper!"

As a contribution to the welfare of the race, the invention of paper clothing probably found its greatest value in focusing in a spectacular way on people's minds the many ways in which paper can be put to good use. Those of you who had an opportunity to examine some of those German "hand-me-downs" will probably remember that they looked like a cross between one of the old fashioned hair stuffed sofas and the suit the country store used to sell for \$10, back in those dimly remembered, peaceful days before the war. No one would want to wear them—few people probably did. But they proved that you can do pretty nearly everything with paper from making artificial flowers to decorated floor coverings.

Hospital Use of Paper in Infancy

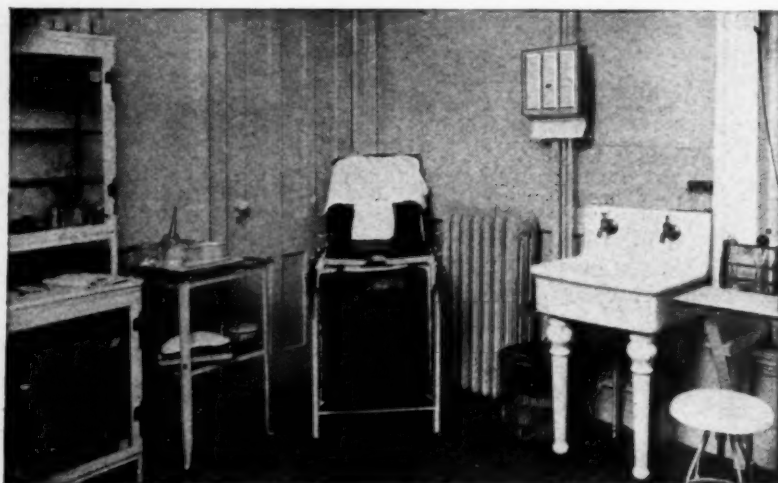
To the hospital, the use of paper products should appeal with particular force. Paper, first of all, is clean, al-

and reduces labor in the institution, and does these things at low cost.

Already paper touches the field of hospital service in dozens and dozens of places, yet the use of paper in the hospital is in its infancy.

Some of the ways in which paper enters into hospital use are in articles which we never think of as being made of paper. Take the fibre furniture with which the sun porches are equipped, for example. In reality this fibre is simply paper, rolled and treated to resemble reed and having infinitely greater wearing qualities than the genuine reed. The stenciled rug on the floor may be, and quite likely is, made of paper. It isn't called that—they call it a fibre rug—but in fact it is simply a fibre paper rolled and shellacked to make it strong and waterproof. When you purchased this furniture and rugs for your sunporches, you paid about half as much as you would have paid for genuine reed furniture or textile rugs. Yet your porches look inviting, and your equipment will last for many years. Paper, mixed with brains, has saved you money and given you a superior article.

The reception of paper in the hospital field has not



Paper towels are regarded as essential in many examining and treatment rooms.



Nurses find paper towels convenient and satisfactory.

most sterile, for in its manufacture it goes through processes involving the use of heat, and in most cases it is untouched by hands until it reaches the consumer. Then, and equally important, it is cheap. It shortens methods

been as prompt or cordial as might be expected. It has met more cordial acceptance in the industries and community life in general than in the hospital. Perhaps this is because hospitals are slow to react to change. Yet the



Paper cups are a convenient means of administering medicine.

hospital stands as the outstanding teacher of asepsis, hygiene and cleanliness in its community—by example at least, if not precept. As such it should welcome the cooperation of paper, for no one single article has had so prominent a place in an awakened consciousness on matters of public cleanliness and hygiene as has paper.

Having studied the use of paper in its application to institutional life for a number of years, the writer owns that he is a "paper propagandist." He knows too what a nuisance a propagandist can become, and how lopsided his opinions may become under the weight of a one-sided view. He has tried, therefore, to keep a mental balance on the subject, and consider any product that involves a change of methods first from the standpoint of the patient.

Every consideration of policy in a hospital should go straight back to the patient. Does it affect the patient's interests? Will it benefit the patient or the contrary? Those are questions that must be answered first.

Use of Paper in Food Service

When the time comes that the writer must go to the hospital to have his appendix taken away, he hopes that when he has reached the point where he can take an interest in his meal, that he won't have to eat from a paper dish with a paper spoon and fork. That would be carrying "paper efficiency" too far and to a point where it would offend the patient's sense of the niceties. If, however, the relish, a side dish or two, or perhaps the butter, were served on a trim looking little paper dish, the general reaction to it would be favorable.

For desserts several types of paper dishes are now available that are most practical and attractive. What, for instance, can equal in utility and appeal the silver dishes

with paper liners, designed for serving ice cream or sundaes and equally convenient for puddings, junket, custards and gelatines? Finally the use of paper finger bowls, either with or without the silver holder, is gaining steadily in hospital service; rightly so, for it is an inexpensive and attractive little service that appeals to the patient.

The fact is that hospitals have been shortsighted in their attitude towards this question of food service. To the modern hotel, the preparation and serving of food is of paramount importance, for the hotel knows that it is judged largely by its food service. Hospital executives perhaps fail to realize how largely it is true that the patient is influenced favorably or otherwise by the institution's food service, and particularly the manner in which it is served. Hospital patients haven't the same lusty appetite that the hotel guest brings with him, *but they have an even more sensitive eye*, and you need every assistance you can muster in the way of appetizing and eye-appealing tray service to make your trays look good to your patients. If hospitals paid more attention to fine

food service than they generally do, we would hear less complaint about high hospital prices. You hear relatively little complaint about the cost of hotel service, yet hotel service the country over is as costly or more so than average hospital service, and the hospital gives an infinitely greater measure of service per dollar of cost. The hotel has been more skillful in selling its public on the value of its services.

In food service, the most obvious use of paper comes as a substitute for the cloth napkin and tray cover. Here opinion has divided itself into two camps. In one camp are those who argue



Paper sippers or "straws" used with a paper cup have replaced the old-fashioned feeding cups and tubes.



Paper fabrications make patients' trays more attractive. The paper items shown in the illustration include paper tumblers, tray cover, napkin, butter pat, chop holder, vegetable side dish, dessert service and tray marker.

that their patients would never accept a paper napkin or tray cover with satisfaction; in the other are those who say that any patient would prefer a crisp clean paper napkin in preference to a cloth napkin yellowed by laundering and torn and dog-eared in its journey through the mangle. Desertions from Camp No. 1 to Camp No. 2 are reported daily, with morale in Camp 1 at low ebb. Camp No. 1 had considerable argument in the earlier days of the paper napkin, but with the steady improvement in qualities and devising of paper napery which imitates the cloth napkin in design, the general use of paper napkins and covers in hospitals seems now but a question of time.

Supplants Common Drinking Cup

As yet the possibilities of the paper cup are little understood. Glassware breakage is a tremendous item of cost in the hospital, and one hard to avoid. This could be eliminated with the use of "paper" glassware. There are certain types now on the market that are as attractive as a glass tumbler. As another suggestion, small paper cups used for serving boiled eggs save a lot of time at the dishwasher. Egg residuent sticks, like a bill collector, and has to be loosened before the cup is washed. Paper cups, used and thrown away, would do away with this entirely. Paper glasses in the contagious wards are a more obvious necessity. And paper cups at the public drinking tanks! Why is it that one of the few remaining places in which you can find a common drinking cup used at an ice water cooler for general use is—in many a general hospital. The hospital that is teaching its community hygiene—and still maintains a general drinking tumbler or glass—well, you say it. And while you're saying it, look into the matter of the common roller towel. Many a hospital still sticks to it (figuratively speaking as well as literally) with loving care. Yet such good paper towels can be procured!

About fifteen years ago a manufacturer tried desperately to introduce a paper substitute for absorbent cotton. Did he succeed? He didn't. Come to think of it, we did love our ruts, didn't we, in those days before war came along to blast us out of our ease and contentment. When the war came, there wasn't enough absorbent cotton to go around. So another manufacturer produced a paper substitute. Hospitals took it because they had to, but they said, "We'll go back to absorbent cotton after this is over, believe me." And they did, almost to a man. But



Patients appreciate the dainty freshness of paper service for between-meal feeding.

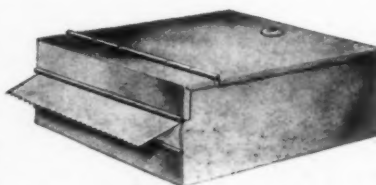
after a bit they began to realize that the paper substitute was, as is claimed, more absorbent, and that it did most of the things that cotton would do and did them more cheaply. So back they came to the paper substitute, and

today hundreds of hospitals are using the paper cotton to a large extent. Paper bandages were another war time measure, but lacking sufficient strength, they didn't last;



The surgeon appreciates the sanitary value of paper towels.

although here and there, in emergency hospitals particularly, they still fill the bill better than the gauze bandage could do, or at least at a smaller cost.



Toilet paper dispenser for bedside table.

It would take too much space to list at any length the various items made of paper which have won or are winning their way into hospital practice, but a brief listing is permissible.

Paper parchment sheets, particularly for cribs, are an admirable rubber sheeting substitute, being cheap, noiseless, perfectly waterproof, and not as hard on the body. A similarly prepared paper is a substitute for oiled silk and other more expensive dressings, and also used for aprons and similar protections. Nothing like the use is made of the paper bag that is possible. Large sizes make admirable waste "catch-alls," being more satisfactory than cans because when filled they can be burned, thus eliminating unpleasant cleaning. In the heavy weights, they will carry wet dressings without tearing, as well as garbage and dry refuse. In the smaller sizes, paper bags are used for requisitioning-out food stuffs and for bedside waste disposal.

The paper napkin, in addition to its use on the tray, can be cut up into small sizes which hospitals "in the know" call ether wipes or tonsil napkins. These small cuts can save a hospital a great deal of money as substitutes for gauze or clean rags, and are just as satisfactory if a soft crepe napkin stock is used.

Another recent paper device of value is a cup, made without the use of paraffin to give it strength, and designed for serving hot liquids, medicines, etc. By eliminating the use of paraffin, the cup is tasteless and when used with hot liquids. These cups are low in cost. Then forget not the "soda straw" or sipper. In the early days of the soda fountain it was a straw, but as has happened with so many other items, paper proved itself able to do the job better. The sipper is now an established item of hospital service, and had it done nothing more than drive the old goose neck feeding cup to the junk pile, it would be entitled to its niche in the hall of fame.

No type of institution appreciates the virtues of paper as does the tuberculosis sanatorium, and this is so be-

paper cotton to
other war time
they didn't last;

cause in a tuberculosis institution, handling an infectious disease, paper which can be burned after use in an obvious necessity. But the tuberculosis sanatorium has gone beyond the obvious uses, and you will find it using paper blankets mixed in between the wool blankets, and paper spring covers under the mattresses to protect outdoor sleepers against cold winds. Many of them provide their patients with snug-fitting paper vests because these garments shield the wearer from the cold, and are important where patients spend so much of their time out of doors in all seasons and weathers.

In the general hospital, the absolute need for paper



items is perhaps less obvious. So much the more reason for endeavoring to hunt out ways in which paper can save time or money. It is an interesting study, and likely to be a profitable one.

Go through your own institution some day with an open mind and a mindful eye, note the many places and ways in which you are now using paper in some form or other, then ask yourself how greatly you would be inconvenienced if suddenly every scrap of paper and every article in your hospital made partly or entirely of paper were taken away. A fair answer would be a good incentive for studying new ways in which your good friend Paper can be put to work for you.

LENGTHENING THE DAYLIGHT DAY BY MEANS OF PAINT AND INTERIOR ILLUMINATION

BY FREDERICK ARNOLD FARRAR, CHICAGO.

HOSPITAL administrators are ever looking for new ways to economy, better comfort and sanitation, but very few are fully aware of the surprising influence that colors, densities and surface finishes of paint may have upon both the quality and quantity of artificial, or even natural, indoor illumination. In fact, it has only been during this last year or two that any serious, systematic study has been undertaken along this line, but it is a subject that hospital and big building managers, architects and engineers, are taking more and more interest in, especially, as they gain a greater knowledge of eye comfort, economy in night lighting and costs of maintenance of lighting systems and interior surfaces. It works for success all around.

Recently, a progressive painter in a modern hospital paint shop made up two gray shades, using different tinting colors in producing each. After this, the two grays were coated on wood and metal, and the samples when dried tested for their lighting properties. This being done, an interesting point was discovered; though the color match was perfect, one of the colors absorbed more light than the other. The obvious conclusion then is that most all ingredients in paint have a strong influence upon their efficiency as light reflectors, and that colors or tints are not the only thing to take into consideration when determining efficiency.

Paint and Lighting Closely Related

Other and very interesting conclusions have been reached from further study, but to understand the interaction of light and interior surface coatings better, one should keep well in mind the following helpful points.

The light from an electric lamp, for instance, penetrates further into some surface films than others. If light reflects from a dense surface, or as it would from a highly glazed surface, it would naturally remain unchanged in color. An action of this character may be seen by reflecting a ray of white light from a sheet of red glass, and observing that the reflected ray still remains uncolored, i. e. white, but if the light penetrates somewhat into the surface, it will be redirected back with a change in color, just as the ray of white light which

passes through the sheet of red glass will emerge red. The ordinary mixture of ochre and oil applied to a tin roof illustrate this coloring action of the painted surface upon light, because here the diffusely reflected light of the sun will be decidedly pink.

The possibilities of the commercial application of this fact are almost unlimited. Should a merchant desire to secure artificial illumination in a store which would approach or approximate daylight in color-quality, he might use the daylight blue Mazda lamps in the lighting units, but might absolutely counteract the color-correcting action of the blue glass of the lamps, or the inclosing globes, by using a red or yellow shade of interior paint. Most people, particularly in a hospital, prefer a warm, colored atmosphere, and the original white light of either day or night illuminates can be made slightly golden or less cold and harsh by carefully selected ceiling and wall colors of rich cream, old ivory or tan. They will warm up a room in tone, relieving the eye and nerve strain.

Must Know Laws of Light Reflection

You would never find a good paint salesman, for instance, who would permit a jeweler to use gray or green colors in a room where pearls are sold; neither would he recommend yellow or red walls to surround displays of cut glass, silverware or diamonds. Rooms in the modern building, having northern or north sky exposure, as a rule, should be finished in cream rather than in gray or greenish colors. When rooms face south and have a large amount of direct sunlight, use the light grayish-green colors for the greatest eye comfort.

Great mistakes are frequently made in painting because of a misunderstanding of the laws of light reflection. One commonly expressed mistake is that "the angle of reflection equals the angle of incidence." We all should note that this law holds true so far as the surfaces are concerned, like mirrors, polished metal, or like a highly polished varnished surface. The fact is that when a light is reflected from a matt, stippled or depolished surface, it will be spread out greatly, and the most of it will be directed back normal or perpendicular to the painted surface, regardless of the direction from which it origin-

ally came. For this reason you will see it is of no benefit to have glossy finishes of painted surfaces; in fact, the amount of light reflected therefrom is usually no greater than that reflected from a matt surface, and shiny surfaces create bright images of light sources and thus augment glare.

Paint colors have a tremendous effect upon the quality of usable illumination, and in smaller rooms this effect is so great that one may well emphasize it repeatedly. For instance, suppose that we have two small rooms, one finished in a dirty yellow color, that has a reflecting value or coefficient of 70 per cent, the other finished in medium cream color with a coefficient of 80 per cent. The direct light on the table in the first room would be increased (by virtue of multiple interior reflections) by 2.3, while the increase in the second room would be 5.0. If a 150 watt Mazda lamp furnished sufficient illumination for the first room, then a 100 watt lamp would furnish about the same illumination for the second room.

It would cost no more to paint with a good cream than with a darker yellow. The labor cost is the same, yet in

the darker interior the cost for lighting power to produce the same illumination would be 50 per cent greater, a big saving, whether taken into consideration for a week or a year.

Hospital managers will readily see that it would pay to refinish dingy interiors, because thereby the useful illumination can be thus so greatly increased and the costs of lighting so greatly reduced. The saving in electric power usually can more than offset the necessary cost of painting.

Always remember that painting for light is a very important subject, and its careful study and the following of its principals makes a big difference in net profits. The proper cleaning of painted surfaces is also likewise important; cleaning should in all cases precede painting.

Choose well your colors, study the natural lighting of your rooms, and use such shades as will help to lengthen the daylight day, ease the strain of patients, and you will find that a great saving can be made and the occupants of the rooms will be healthier and happier.

FOLDING GOODS IN THE HOSPITAL LAUNDRY*

BY WALTER T. WILLIAMS, CINCINNATI, OHIO.

AS FAR as the writer has been able to learn, there is not in hospital laundries, taking them collectively, any semblance of what one might call "common practice" in the folding of miscellaneous articles. In research work for this series of articles cases were even found where each folder in the same hospital was doing the work differently. Furthermore, cases were discovered where a worker was folding a given article one way one time and another way the next. In one case an experienced folder was requested to fold an article, and after it was opened up she was unable to fold it up the same way again. An investigation showed that she had no idea of standard methods, and she just folded up things in

fort is made either to have the mark come where it can be seen or have it where it readily can be found. This, of course is poor economy.

In most hospitals a great amount of care is taken in the laundering of the nurses' uniform. In some hospitals the uniforms, sometimes referred to as dresses, are not folded at all, but they are delivered on hangers, either being hung up in the linen room, where the nurses can get them, or placed in their quarters. One plan for folding these garments is shown by three of the accompanying illustrations.

By this method the garment is spread on the table, button side down, with the opening closed and the sleeves spread



Fig. I
First fold of nurse's uniform.



Fig. II
Second fold of nurse's uniform.

any way that struck her fancy at the moment.

The general practice, it appears, is to fold the pieces in any convenient way, with little regard to the shape and size of the article after it is folded, and it often happens that no ef-

out flat. Then (1) fold lengthwise, so as to divide the garment into thirds, drawing over the sleeve, as shown in Fig. 1; (2) same as (1), as shown in Fig. II; (3) fold across the narrow way, in center, as shown in Fig. III.

Another fold may be necessary, but it is best to avoid it if possible. It is well to refrain from pressing down the



Fig. III
Third fold of nurse's uniform.

*The third of a series of articles on folding goods in the hospital laundry written for THE MODERN HOSPITAL by Mr. Williams.



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folds, leaving them as loose as can be done, in order to avoid undue creasing of the garment.

A method of folding skirts is as follows: Spread the garment on the table, placket side down; (1) fold from band to hem, dividing the skirt into thirds; (2) same as (1) but reversed; (3) across narrow way, in center.

A point that was brought out in several hospitals is this: Nearly every woman strenuously objects to having a crease down the front of her skirt. This, it seems, is considered "bad form." Therefore it is well to bear this in mind, both in folding separate skirts and in folding garments that have the skirts attached, especially such things as are starched.

The manner in which a full-sized apron is folded in one



Fig. IV.
First and second folds of full-length apron.

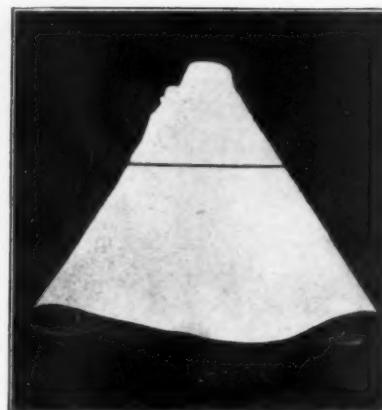


Fig. V.
Full-length apron, after the third fold. The fourth fold is indicated by the dark line.

resembles a skirt, there may be some objection to it. It seems, however, that this plan is not objectionable in this instance, because no permanent crease is made. The apron is heavily starched, and as it is rolled up loosely, rather than folded, no crease is made down the front.

Patients' bedgowns may be folded in about the same manner as any other sleeved garment, but in one hospital a different method is used. In it the bedgowns are done up "rough dry"; that is, they are only washed and dried, the ironing being omitted. Figs. VI,



Fig. VI.
Patient's bedgown, after the third fold.



Fig. VII.
Patients' bedgown, after the fourth operation. The dark line indicates the fifth fold.



Fig. VIII.
Patients' bedgown, after the fifth fold.



Fig. IX.
Patients' bedgown, after the sixth fold. The dark line indicates the seventh fold.

hospital is shown by Figs. IV and V. The very simple process is, (1) fold in center, from band to hem; (2) again from band to hem, as shown in Fig. IV; (3) same as (2) as indicated by dark line in Fig. IV, and as shown in Fig. V; (4) across narrow way, in center, as indicated by dark line in Fig. V.

It is important to note that this plan of folding brings a fold in the center of the article, and as the apron closely

VII, VIII and IX give a good idea of this method of folding.

The bedgown is open in the back. Fold one is in the center, from neck to bottom hem, bringing right side in, with sleeves extended; (2) bring one edge to the center fold, leaving the sleeves extended; (3) turn the gown over and fold same as (2) after which it will be as shown by Fig. VI; (4) fold the sleeves under, as shown in Fig. VII; (5) fold lengthwise, in center, as indicated by the dark line in Fig. VII, bringing the

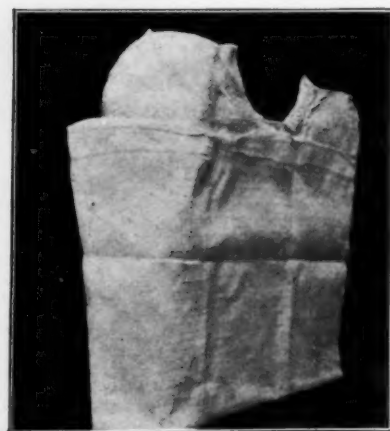


Fig. X.
First fold of sleeveless nightgown.



Fig. XI.
Sleeveless nightgown, after the second fold.



Fig. XII.
Sleeveless nightgown, after the third fold. The dark line indicates the fourth fold.

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sleeves over, as shown in Fig. VIII; (6) across narrow way, in center, as shown by Fig. IX; (7) parallel to, 6, in center, as indicated by the dark line on Fig. IX.

Ordinary nightgowns may be folded the same as a shirt, the folding of which was described in a previous article of this series, but an additional cross fold will be needed to bring it down to size. Likewise, waists and blouses may be folded the same as shirts, but one cross fold will be omitted where the garment does not extend below the waist line. Shirt folds may also be used for shirt kimonos and many other sleeved garments.

An ingenious and simple method of folding sleeveless night robes and other sleeveless garments is illustrated by Figs. X, XI and XII, the steps being as follows: Spread the article on the table with the front upward; (1) fold across, bringing the bottom hem near the bottom of the neck opening, as shown in Fig. X; (2) parallel to (1) half way between hem and previous fold, as shown in Fig. XI; (3) across narrow way, dividing the garment into thirds, as shown in Fig. XII; (4) same as (3) as indicated by dark line in Fig. XII.

Folding and Marking Systems Should Harmonize

In this and the two articles that have preceded it there has been outlined as clearly as possible a simple method of folding most of the articles that come to the laundry of an average hospital. A specific method of folding some articles has not been given, because they are almost the same in form as articles the folding of which has been described, and may be folded in practically the same way. For example, a bath robe may be folded the same as a night robe, so there is no necessity of repeating the description of process.

The main point to the series of articles on folding is this: In every hospital laundry there should be a standard method of folding all articles; that is, a given article always should be folded in the same way. And it should be remembered that the prescribing of a standard method is not enough; it must be adhered to. There also should be a standard system of placing the marks, for the folding and the marking are interdependent, and the system of doing one must harmonize with the system of doing the other.

A PERMANENT INK FOR MAKING RECORDS

Numerous hospital administrators have made inquiry as to a writing ink which will insure permanence of records. Many of the commercial writing fluids fail to give satisfaction in this respect, with the result that frequently important records, case histories and clinical data fade out and are practically illegible after a period of time.

The U. S. government has prepared a formula for a standard writing fluid which is employed in its various departments and which is claimed to have greater merit and more definite permanence than can be secured from commercial writing fluids.

The suggested formula for making this writing fluid, as prepared by the Bureau of Standards, is given below:

Take of pure dry tannic acid, 23.4 grams; of gallic acid, in crystals, 7.7 grams; of ferrous sulphate, 30 grams; of dilute hydrochloric acid (U.S.P.), 25 grams; of carbolic acid, 1 gram; of dye, Bavarian blue D.S.F. (Schultz and Julius, No. 478), 2.2 grams; make to a volume of 1,000 cubic centimeters at 60° F with water.

In making the ink, dissolve the tannic and gallic acids together in about 150 cubic centimeters of warm water, dissolve the ferrous sulphate in about 150 cubic centimeters of cold water, and dissolve the Bavarian blue in about 700 cubic centimeters of warm water. Add the hydrochloric acid to the ferrous sulphate solution, then immediately mix it with the cooled solution of the tannic

and gallic acids, dilute to a volume of 1,000 cubic centimeters and mix thoroughly, add the carbolic acid, and allow the mixture to stand for several days.

The ferrous sulphate (or iron sulphate) and the tannic and gallic acids unite to form the real active principle of the ink. The hydrochloric acid is added to prevent the formation of sediment, the Bavarian blue is a water soluble blue dye which is added to give the ink a pleasing first color so as to render it legible until the intense color of the ink itself has had time to develop, and the carbolic acid is added as an antiseptic to prevent the formation of mold.

The government standard writing fluid may seem to the person who uses it for the first time to be rather thick and slow flowing. These objections usually are brought forward by those who have been in the habit of using commercial writing fluids. If the government standard ink were to be diluted with an equal volume of pure water, it would approach very closely the composition of most of the writing fluids and fountain-pen inks on the market. For important records, however, it should never be diluted. After it has been used for a while one becomes accustomed to it and realizes that the advantages which it possesses far outweigh the seeming disadvantages which were first noticed."

NEW BANDAGE CUTTER

The widespread use of bandage rolls among hospitals has brought about the introduction of a new bandage cutter designed primarily for use in this connection. Hitherto bandages have been cut by means of an ordinary knife or with a simple device consisting of a wood trough or miter box and an adaptation of the ordinary serrated-edged bread knife. The new cutter, however, is positive



in its action, holding the bandage roll securely and cutting off any width bandage with a single stroke of the cutting lever. One advantage claimed for this cutter is that it leaves no frayed edges on the bandage, each one being cut cleanly and easily.

One important gain in the use of bandage rolls lies in the fact that bandages by means of this new cutter can be secured in any desired width. It is possible to gauge the cut exactly to the fraction of an inch.

Little coughs often lead to large coffins.

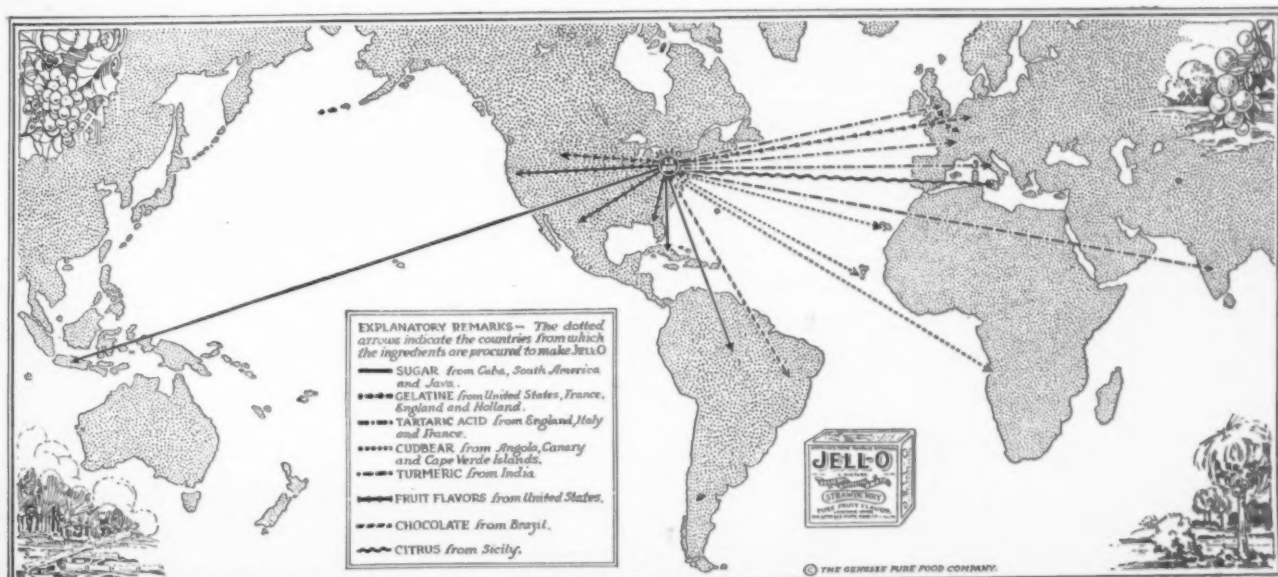
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Conducted by MICHAEL M. DAVIS, JR., Ph.D., Executive Secretary Committee on Dispensary Development, United Hospital Fund of New York, and Chief, Service Bureau on Dispensaries and Community Relations of Hospitals, American Hospital Association, 15 W. 43rd Street, New York
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370 Seventh Avenue, New York

REFRACTION AND PROVISION OF GLASSES IN EYE CLINICS OF NEW YORK

BY GERTRUDE E. STURGES, M.D., ASSISTANT SECRETARY, ASSOCIATED OUT-PATIENT CLINICS OF THE CITY OF NEW YORK

THE Associated Out-Patient Clinics, a membership organization of the leading dispensaries of New York City formed in 1912 for the purpose of studying dispensary problems and suggesting solutions, was confronted last year with many difficult and interesting problems concerning eye clinics. Because of the complexity and variety of the problems presented, a section on ophthalmology composed of physicians representing the thirty-nine eye clinics of the Associated Out-Patient Clinics was organized to study these special problems. An executive committee of distinguished ophthalmologists connected with leading clinics of New York was appointed, and the work began.

Studies of the methods of organization and administration in twelve representative eye clinics revealed a number of unsolved problems. In addition to such outstanding fundamental difficulties as the admission of too large a number of patients in proportion to the space, equipment, and particularly the medical staff available, as well as the failure to follow-up patients with serious eye conditions, there stood out the two matters with which this article deals, namely, refraction work in the eye clinic, and methods of providing eye glasses for patients. The studies of the committee of ophthalmologists led finally to the formulation and adoption of a number of recommendations for improved service in eye clinics.¹

In all eye clinics, the prime difficulty in refraction work from the standpoint of the medical staff is its routine character. After a comparatively short period of apprenticeship in the clinic, physicians find that refraction work does not provide the interesting professional experience which they value, and which they secure in the general work of the eye clinic. The task of the refractionist appears to most men as dull, routine work. It means performing the same task again and again, dealing with great numbers of patients who are frequently stupid, slow and inaccurate in their answers. Owing to medical inspection in the schools, many children who are thought to need glasses are referred to eye clinics so that a large proportion of the patients who apply for refraction are children. Aside from the uninteresting character of the refraction clientele, there are other irritating mat-

ters. As a rule, there are not enough trial cases, which means that more than one doctor must use the same case. Trial cases are frequently incomplete, owing to the original inadequacy of equipment, and also to the fact that with several doctors using the same case, lenses are often put back in the wrong place. All of which makes for general inefficiency of the medical staff.

Although refraction is such tedious work, it requires the services of a skilled and experienced physician, one who can be depended upon to give conscientious attention to detail. This is absolutely essential if the work is to produce actually useful results. Refraction also requires a great deal of time, for if it is done in haste, it may result in inaccurate prescriptions and wrong glasses which may be worse than no glasses at all. Naturally enough, a trained physician will not of his own accord choose to do routine work for which he receives no recompense. The problem of refraction has therefore been found by the section (as stated above) to be of outstanding importance.

Because of the routine involved, a physician who may be rather interested in refraction while he is learning it leaves from sheer boredom just when he is sufficiently trained to be valuable to the clinic. The committee has found, therefore, in its study of the twelve clinics, that refraction is being turned over in many of them to the least experienced men. In only three of the institutions visited is all the refraction done by the physician on the visiting staff; in three others, the members of the staff do the majority of such work; in the rest of the clinics studied, 50 to 100 per cent of the refraction is done by students, interns, or optometrists, in some cases supervised by the visiting staff, but in many cases working entirely independently. In one clinic where refraction actually was being done by the physicians, it was being done under decided protest.

The committee also found that in many clinics, refraction was being done much too rapidly to insure accuracy. The estimated number of patients refracted per physician per hour was in some clinics, as high as twelve, or five minutes per refraction. It is obvious that efficient refraction cannot be done at the rate of twelve patients per hour. Since refraction is not emergent, it would be better to take time and do it right.

Since it has been found that refraction is a sort of

¹Standards for Out-Patient Service in Ophthalmology, American Journal of Ophthalmology, April, 1923.



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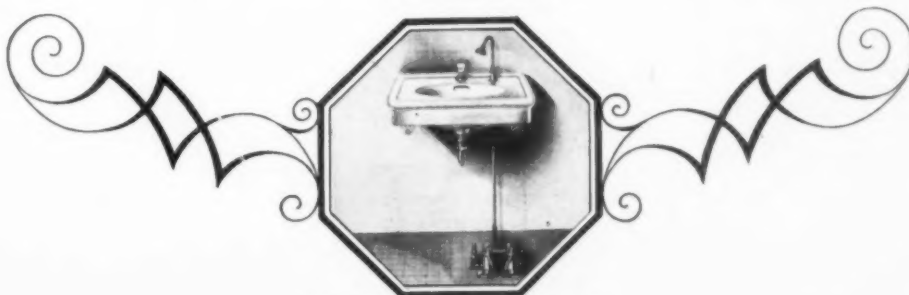
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drudgery, and that it is therefore often turned over to inexperienced men, and that it is in many cases performed too hastily, the committee feels that satisfactory refraction can be secured only by paying skilled and efficient physicians to do the work. The section therefore included in its recommendations the following:

"In large refraction clinics, at least the physician in charge should be on a salary basis."

Because great numbers of patients come to eye clinics for refraction, many large institutions have arranged that this work be done not in the general eye clinic, but in a separate refraction clinic, at a different hour. Otherwise, it clogs the general clinic. This is true not only of large but of moderate sized clinics as well. In those institutions where the patient first applies at the general clinic, and is then referred, when necessary, to the refraction clinic, overcrowding is alleviated. In many of the larger institutions appointments are made for refraction, which ensures that no more patients will attend one clinic session than can be adequately handled by the physicians in charge. The section therefore recommended that:

"In large clinics, refraction should be done in a special clinic under the supervision of an experienced ophthalmologist and with an adequate number of assistants, including the house staff. All patients should be admitted first to the general eye clinic, and, after suitable examination, and when indicated, should be referred to the special refraction clinic."

Would Charge Refraction Fee

Although it is the practice in most clinics to make a charge for various x-ray and laboratory examinations, for special treatments, and dressings, it has not been customary to charge a fee for refraction, a procedure which we have already stated is routine work, yet requires the services of a skilled physician. In order to better the service, the section has felt that refractionists should be paid a salary, and that a fair way to meet this added expense would be to charge a regular refraction fee to the patient. The committee of ophthalmologists has felt that from the standpoint of both patient and institution it would be preferable to charge a refraction fee and provide really adequate service, rather than to continue with the present arrangements which in many institutions are so far from satisfactory. It is, of course, understood that fees would be remitted in all or in part, according to the policy of the institution, for patients needing the service but unable to pay for it. The section therefore recommended that:

"A refraction fee should be charged. To simplify book-keeping and admission charges, this should be a flat fee of \$1 in addition to the regular admission fee, no matter how many visits are necessary in order to complete refraction."

The committee has also learned from its study that many clinics do not give adequate instructions regarding the use and effect of cycloplegics. The amount of cycloplegic to use is not carefully impressed upon the patient, so that he sometimes uses too much. If the patient is a child, as is often the case, the mother who has not had the effect of cycloplegic made clear to her may think her child is going blind. In some clinics visited, the use and effect of cycloplegic is explained by physicians or nurses. Other clinics supplement verbal instructions by detailed printed instructions. The section feels that this latter method is an additional safeguard, and that this matter is of the utmost importance, and should be given attention. The section therefore recommended that:

"Detailed and careful instructions as to the use and effect of cycloplegic should be given. Oral should be supplemented by written instructions."

Most ophthalmologists in private practice recognize post-cycloplegic tests as part of the routine, except in cases of presbyopia, but in clinics the time element usually precludes this practice. The committee found that only three institutions make post-cycloplegic tests as a part of the routine. In one institution only ten per cent of the cases are checked by this method; and in one, none at all. The section felt that this was a precautionary measure which should not be overlooked, and therefore recommended that:

"All patients refracted under a cycloplegic should, if possible, have a post-cycloplegic test before glasses are prescribed."

Profit-Splitting in Glasses

The other equally serious problem with which the committee of ophthalmologists found themselves confronted was that of provision of glasses. Clinic arrangements for providing patients with glasses have always been more or less unsatisfactory. A few institutions have their own optical plant for making glasses, but most large institutions arrange to have them furnished by a local optical firm which sends a representative to each clinic session. The work of providing glasses is thus put in the hands of the optician, who in return allows the clinic in some cases 25, in some cases 50 per cent of the gross receipts. Although considerable surplus may go to the institution, this may be small compared with the profit made by the optician. Patients frequently return to him for repairs, new lenses, etc., which in a year or so may amount to as much as the original price of the glasses. Meanwhile the clinic refractionist performs his routine duties with no recompense whatsoever.

The practice found in some clinics for the individual ophthalmologist to refer patients to an outside optician and divide the profits with him is obviously undesirable. Any financial arrangements should be made by the institution direct and not by individual members of the staff.

One difficulty with referring patients to an outside optician for glasses is that even when they are requested to return to the clinic to have their glasses checked, they often do not do so. It is practically impossible, if the work is done outside the clinic, to make sure that prescriptions have been accurately filled, and to check satisfactorily the quality of workmanship and materials used. It is also difficult to ascertain whether patients ever actually secure their glasses. The institution may not be familiar with the optician's price, and therefore unable to tell the patient what his glasses will cost. Here is opportunity for overcharging, since it is difficult to check the optician on his prices. Finally, should the optician fail to fill the prescription accurately, the time of the ophthalmologist, the clinic and the patient is completely wasted.

Clinic Should Employ Optician

Many large institutions do away with some of these difficulties by having the optician bring the glasses to the clinic, where the patient can secure them. This, the committee found, usually works much more satisfactorily, but again the optician makes the chief profit from the business. If the patient secures his glasses directly from the clinic in the first place, the tendency would be for him to return to the clinic for repairs or new lenses later. His eyes would then be kept under proper supervision as long as it was important, and both patient and institution would benefit. The section therefore recommended that:

"Each institution should either (1) have its own plant for manufacturing glasses, or (2) employ an optician on a full or part time basis to fit and make glasses, contract

It couldn't have happened to a Castle

(The Superintendent and the Surgical Nurse were talking. Series XI.)

"Saw a sterilizer wreck yesterday, Miss Smith. Glad it wasn't ours. Great big tank collapsed like a paper bag—spilled water and steam all over the place. And the hospital has no other sterilizer to fall back on. Got to spend five or six hundred dollars to replace it."

"I suppose it was another case of buying cheap, wasn't it?"

"Yes, it seems some valve didn't function—caused a vacuum, and the tank was too light to stand the strain."

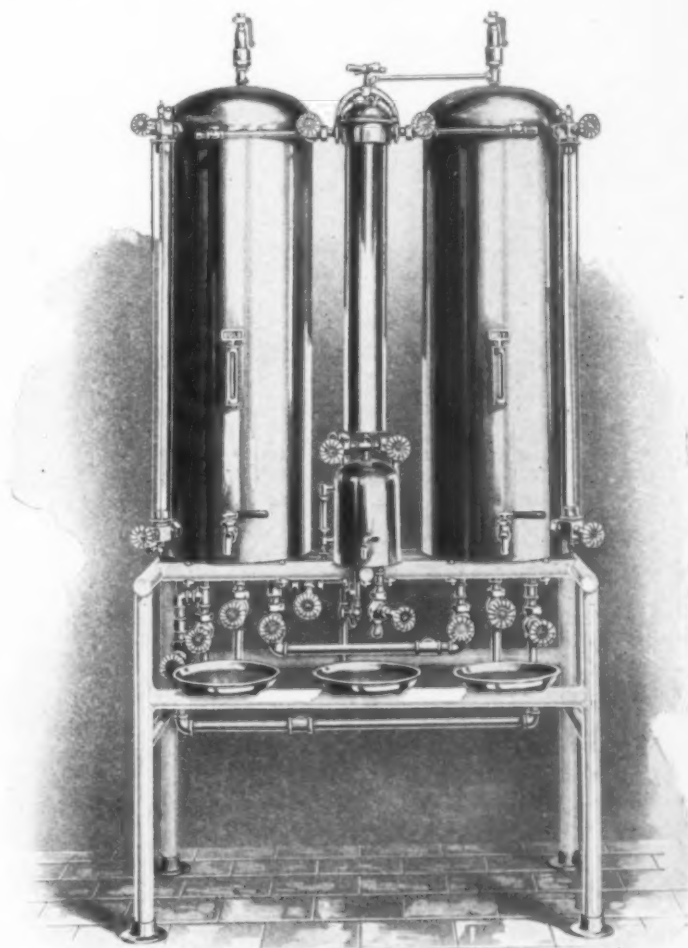
"Castle Sterilizers suit me, Doctor. They're stronger, and I believe every single part, such as that valve you speak of, is better."

"Yes, I think you're right. There's a lot about a water sterilizer the average person never even thinks of. And the Castle people do seem to know how to take care of those things."

"You're right, Doctor, our Castles give us our money's worth."



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with a wholesale firm to furnish materials at wholesale prices, and sell the glasses to patients at the clinic. The optician should be paid a salary for conducting the optical business with a percentage bonus for all work done over a specified amount."

Both of these plans are in actual operation at the present time. One institution in New York has its own plant, while in Cleveland, Lakeside and Mount Sinai hospitals, two exceedingly well administered institutions, have worked out the second method.

Prices Should Be Posted

Under the present system of providing glasses in the clinics of New York, the prices charged vary greatly. Although this fact may be somewhat justified by the difference in workmanship, materials, and size of clientele (clinics handling many patients may be able to charge less) still prices are not always in accordance with the service rendered. In fact, several concrete examples of overcharging have been observed. It is, of course, proper to provide glasses for patients at a price which will meet the cost of the materials and of the opticians' services in the clinic, and also meet, or help to meet, some share of the general expense of maintaining the eye clinic.

Nevertheless, the price to the patient for his glasses ought to be moderate, substantially below commercial rates for similar glasses. Any other policy is not only inconsistent with the establishment of a clinic for philanthropic purposes, but also tends to encourage patients to secure eye glasses, without medical examination, from optometrists or department stores.

One safeguard against overcharging is provided by an open list of prices for various types and grades of eye glasses and frames. Three New York institutions have such an "open list." On the prescription blank given the patient when he is sent to the outside optical firm for his glasses are printed prices of the various types of frames and lenses. The patient then knows what his glasses should cost, and overcharging is thus avoided. The section recommended that:

"Prices for all types of glasses should be posted."

Another fault of the present system is the flagrant waste of time and money in doing refraction which does not result in the patient's securing glasses. This is due to the fact that often he does not even order his glasses, or after ordering them, fails to call for them². Sometimes the patient fails to go to the optician because he does not realize how important it is. Again, he fails to call for the glasses after ordering them because he cannot afford to pay for them, and does not know that the clinic will provide them for him if it is necessary. In many cases he is simply careless. The committee found that in two institutions there is a systematic checking of the uncalled for prescriptions with follow-up postals to the patients informing them that the glasses are ready. In the institutions studied, the proportion of glasses which have been ordered but not called for amounts to from 3 to 15 per cent. Many institutions require some deposit on the order, and it has been found that those institutions which demand a certain amount of deposit have fewer glasses left on their hands. The section therefore recommended that:

"A deposit should be required at the time glasses are ordered."

Should Not Restrict Type of Frames

The question of types of frames which patients should

be permitted to purchase is open to discussion. The question arises: Can a patient whose economic status presumably compels him to come to a clinic for treatment, afford to buy, for instance, gold frames and should he be permitted to do so? Investigation as shown that often a patient's occupation is such that if he is to wear glasses at all they must not detract from his good appearance. A clerk or a saleswoman, for instance, would probably have difficulty in retaining her position were she compelled to wear steel rimmed goggles. The reasons why some patients do not order glasses after being refracted, or fail to call for them after placing the order, is sometimes found to be the restriction as to type of frames which the clinic will provide. The committee of ophthalmologists therefore recommended that:

"There should be little or no restriction of the types of frames allowed for dispensary patients."

Summary and Recommendations

Recommendations such as made by the committee of ophthalmologists necessarily involve administrative questions which require study and consideration by the superintendents and trustees of hospitals maintaining eye clinics. The administrative point of view has, of course, been taken into consideration in conference and otherwise in making these recommendations.

Criticism and comment on the studies and recommendations of this report are cordially invited from ophthalmologists and administrators interested in eye clinics.

The outstanding point is that a large amount of visual defect exists among persons who cannot afford to pay the cost of securing examinations by expert ophthalmologists at private office rates, with the additional cost of eye-glasses at opticians' regular prices. Skilled service for such persons is hardly to be regarded as charity. From many points of view it should be regarded as an economic necessity—a measure of public economy. It is surely a matter of public interest to see that competent ophthalmological and optician service is available for children whose education cannot proceed satisfactorily unless their vision is corrected. It is of equal and perhaps of more immediate importance that workers who cannot hold positions or earn adequate wages because of imperfect eyesight should have opportunity to secure medical examination and eye glasses when required. The apparently technical facts and recommendations dealt with in the preceding article thus have some public significance.

FINANCIERS TURN 'MOVIE' ACTORS TO AID NEW JERSEY HOSPITAL

Thomas W. Lamont and Dwight W. Morrow, partners in J. P. Morgan & Co., and Seward Prosser, chairman of the board of the Bankers Trust Company, of New York, took the leading roles recently in a motion picture depicting the medical and surgical services performed by a general hospital. Under the glare of powerful lights the financiers visited the children's ward, nursery and operating rooms of Englewood Hospital at Englewood, N. J., and under the command of a motion picture director they "registered" surprise, sympathy, joy and consternation.

The scenario, which was donated by Adolph Zukor to the cause of increasing the hospital facilities of the Northern Valley of New Jersey, called for an inspection tour of Englewood Hospital to study the need of bringing the congested conditions there to a safety point. The picture was taken to serve as a part of a campaign through the Northern Valley towns to emphasize the need of a larger and better equipped hospital at Englewood.

²Edward Hartshorn, M.D., and Michael M. Davis, Jr., Ph.D., Follow-up Work as an Element of Effective Treatment in an Out-Patient Clinic for Eye Diseases, Boston Medical and Surgical Journal, Vol. clxviii, No. 15, pp. 538-542, April 10, 1913.

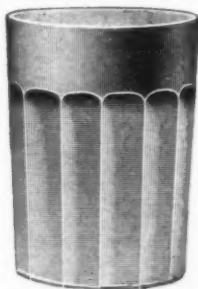
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OCCUPATIONAL THERAPY AND REHABILITATION

Conducted by HERBERT J. HALL, M.D., Devereux Mansion, Marblehead, Mass., and MRS. CARL HENRY DAVIS,

Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.

Co-Editors: LORING T. SWAIM, M.D., 372 Marlboro St., Boston Mass., and

MISS MARY E. P. LOWNEY, Room 272, State House, Boston, Mass.

THE SCOPE OF REHABILITATION

BY MARY E. P. LOWNEY, BOSTON, MASS.

BEFORE outlining a program to cope with any newly recognized problem, whether it be social, economic or commercial, good sense requires that some concern be given to its scope, urgency, results to be attained, the likely effects, and whether they may be expected to justify the expenditures; in other words, one must know what the problem is, what will it cost and what will be achieved through it? Such questions govern the type of program, its size and cost, and should indicate on which side of profit and loss the balance is likely to fall.

Rehabilitation is a comparatively new undertaking. Until recent years little heed was given to those in our midst who had physical impairments resulting from accident or disease. The general public was content to drop impersonal pennies into the caps of those who displayed their infirmities on the street corners. Individuals pitied those with physical disabilities with whom they were thrown in contact. Upon a successful cripple who had pushed forward by sheer force of determination and real ability was bestowed a wondering admiration accompanied by a lurking fear that he would presently go under. The community had not recognized the underlying meaning or the possibilities of dealing with the problem in a constructive way.

Workmen's Compensation Laws First Step

With the passage of workmen's compensation legislation (the first act to take effect was passed in Wisconsin, May 3, 1911; now forty-two states and three territories have enacted such laws) began a slow and gradual awakening of the public conscience. It began to be admitted that there was economic justification for passing on to the consuming public through the employer at least some part of the charges for awards granted workmen on account of industrial injuries instead of forcing upon the injured the full assumption of loss, as was the prevailing custom under the old employers' liability system except in cases of fault or negligence on the part of the employer. Under these recent compensation acts the charges hit the pocketbooks of all purchasers because they were included in the cost of production the same as expenditures for the repair of mechanical equipment and were covered when the ultimate cost of the finished product was determined. A more lively interest in industrial accidents resulted. The administration of the compensation act by state departments created central bureaus in which specific data were collected. Statistics showing the number and cost of industrial accidents were impressive and ef-

forts toward prevention were commenced through "safety-first" work.

It was not, however, until the World War that concerted attention was given to reclaiming or rehabilitating the victims of these accidents. To be sure, some private agencies had helped to lay the right foundation by making investigations and by otherwise indicating the field and their interest in it. Notable among these efforts was the survey made in Cleveland, Ohio, in 1916. During the war period, the great need for workers and the accomplishments of warring countries for rehabilitating their service men wounded in action furnished the really big impetus for the salvaging of the man power of our civilian wounded. The opportunity afforded at that time for the civilian handicapped to use their remaining powers in the industrial life of the nation, and their demonstrations of ways in which their capabilities could be utilized, aroused the public to the realization that the rehabilitation of large numbers who had been allowed to drift as unproductive consumers was worthy of serious consideration.

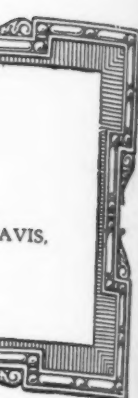
No Reliable Statistics on Handicapped

It is to be regretted that no accurate figures for the number of handicapped are available so that for any perspective it becomes necessary to depend upon estimates. Obviously, employment accidents, those on public conveyances, in the street, and in the home, are the sources that contribute the traumatic injuries which result in handicaps. Diseases, congenital or acquired, form the other large division.

The statistics on employment accidents collected by the industrial accident boards of the several states are not comparable because no uniform system of compilation has yet been put into effect. Examining only injuries classified as permanent disabilities, reports show the following numbers of cases.

Year 1915—Ohio	1,621
Year 1917—Michigan	1,624
Year 1918—Oregon	1,213
Year 1918—Illinois	3,914
Year 1918—Utah	169
Year 1919—Oklahoma	396
Year 1920—Massachusetts	1,621
Year 1921—Massachusetts	1,777
Total	11,815

Although these figures are for different years and different jurisdictions and do not include all large industrial states, they are indicative of yearly occurrences in the states mentioned and the total in those few instances



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Adv. page 56



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Mass. Hospital School, Canton, Mass.
Cleveland City Hospital, Cleveland, Ohio
Mt. Sinai Hospital, Cleveland, Ohio
Baylor Hospital, Dallas, Texas
Harper Hospital, Detroit, Mich.
St. Mary's Hospital, Duluth, Minn.
Walker Hospital, Evansville, Ind.
Foxboro State Hospital, Foxboro, Mass.
Hartford Hospital, Hartford, Conn.
St. Francis Hospital, Hartford, Conn.
Baptist Memorial Hospital, Memphis, Tenn.
Royal Victoria Hospital, Montreal, Can.
N. E. Peabody Home for Crippled Children, Newton, Mass.
Broad St. Hospital, New York City
Fifth Avenue Hospital, New York City
Hahnemann Hospital, New York City
Manhattan Eye, Ear and Throat Hospital, New York City
Mt. Sinai Hospital, New York City
Presbyterian Hospital, New York City
Townsend Hospital, New York City
Women's Hospital, New York City
Hahnemann Hospital, Philadelphia, Pa.
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TO list all of the hospitals that in three years have equipped wards, corridors, operating rooms, and private rooms with Stedman's Naturized Flooring, would fill this page completely. Let us send you the list and you will see.

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Noiseless, resilient—it will not dent, crack, or wear out. Soft and firm to the foot, it prevents slipping. Sanitary, with an impervious surface. Won't stain, easily cleaned—it requires no particular care. Simple to install and the first cost—from 75c to \$2.00 a square foot—is your only cost.

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of 11,815 merely suggests the large country-wide frequency of industrial accidents resulting in some permanent anatomical impairment.

The final report of the United States Commission on Industrial Relations contains the following statement: "The annual list of accidents, approximately 35,000 fatalities and 700,000 injuries involving disability of over four weeks, cannot be regarded complacently."

In 1919, there were 149,053 people injured in railroad accidents in the United States. In 1920 in Massachusetts, 13,012 persons not including employees were injured in street railway accidents. In the same state and year 21,182 were injured in automobile accidents. The extent of disability resulting from these injuries is unknown but the group of figures serves to bring out the fact that a total certainly equal to the number of permanent disabilities from employment accidents must be allowed for the same type of disability from non-industrial accidents and diseases. Such an estimate would be very conservative. It has been stated that national averages on fatal accidents show that 25 per cent of the total are industrial while the other 75 per cent are of a public nature or the result of home accidents. The same ratio applied to the non-fatal accidents in the states mentioned above would give for the group a total of 35,445 non-employment accidents. The total then of both classes would be 47,260. From these figures one may compute the totals for the entire forty-eight states and arrive at the estimate of nearly 300,000 more or less serious accidents yearly.

It was found from the Cleveland survey in 1916 that the proportion of cripples of all ages to the total population was 6 per thousand. The Massachusetts census of 1905 reported 17,134 persons maimed, lame and deformed, a ratio of 5.7 per thousand of population. If the Cleveland ratio is applied to the continental population of the United States, the total number of handicapped of all ages in the country is 634,263. As compared with this computation, the other estimate given of nearly 300,000 is decidedly moderate.

What proportion of these accidents result in vocational handicaps is problematic. A bookkeeper for instance who lost a lower limb would not be prevented by that disability from following his usual occupation. On the other hand, a roofer or structural iron worker with the same disability would be seriously handicapped, or a furniture mover with a severe back strain might be forced to change his occupation on account of his physical condition. In other words, even though it were possible to give an accurate statement of the total number of injured or disabled, it would still be necessary to estimate the number vocationally handicapped and who are in need of, or could benefit by, rehabilitation, because other factors must be considered in conjunction with the physical condition. Allowing 10 per cent of the permanent disabilities as representing the proportion susceptible of rehabilitation, the number to be dealt with would then be between 30,000 and 60,000 for the country each year.

It must be borne in mind that the number of vocationally handicapped is cumulative year by year. With a very short life expectancy allowed for each case, one is forced to admit that the totals are appalling. Certainly they indicate a field that should command the best attention and thought of those who are interested in social and economic projects.

Injured Rarely Gets Full Compensation

Millions of dollars are being paid out each year in compensation benefits and in damages for personal injuries. Millions more are a direct loss to the injured persons.

In compensable industrial accident cases there is always a part of the loss of wages and very frequently medical bills incurred for which no monetary reimbursement is provided and when the disability extends beyond the maximum set for the compensation period and amount, the full loss for that excess reverts to the injured party. There is a loss to the employers because of the resulting labor turnover and in the lesser efficiency and the destruction of material until the substitute worker is brought up to the standard. The future earning power of the injured is diminished or destroyed. Although still consumers, their impairment as producers spells a loss, not only to them but to the community. In non-industrial or non-compensable cases any damages recovered by the injured follow the delay and expense of a law suit. In either case there is a time when the question of future independence is squarely before the injured person. There also are costs which cannot be measured in dollars and cents. Mere figures can never tell the vast amount of physical and mental suffering that follow in the path of accident and disease, nor the severe tests upon the morale of the disabled and the family group affected. Added to the physical strain and helplessness during convalescence are the worries of more or less straightened financial situations, the drawing nearer to the line of dependency, the pressure of usual responsibilities and the poignant realization that there will be a decided limitation of activities and earning power with a consequent shrinking from the future.

Rehabilitation Soon Pays for Itself

Technically, a rehabilitation is the rendering of a physically handicapped person fit to engage in a remunerative occupation.

Can anyone doubt the wisdom of adequate provision for a medium through which can be saved some part of the enormous waste represented by utilized earning power and which can help to fan the hidden, dying spark of self-respect into a lively fire of hope, ambition and useful effort for the security of the future and improved citizenship? In other words it gets down to a method of conservation of the human resources for the benefit of the individual, of industry, and of the country. If vocational rehabilitation can accomplish the reclamation of those physically disabled by developing and training their remaining capabilities so that they can function efficiently in some suitable occupation, it will have assisted industry in its problem of securing trained workers who can meet the requirements of particular jobs and will have fully justified the expenditure of public money for this purpose. of increasing the number of happy, self-satisfied, stable citizens. The amount expended by public departments in the United States for rehabilitation during 1922 was \$735,683.39. It follows that if 735 of the handicapped coming to the attention of those departments are enabled to produce during the remainder of their lives \$1,000 worth more of material wealth for the country than they otherwise could have done, then rehabilitation will have given a splendid return on the government's financial investment.

"What is this life if, full of care,
We have no time to stand and stare?
No time to stand beneath the boughs
And stare as long as sheep or cows?
No time to see when woods we pass
Where squirrels hide their nuts in grass?
A poor life this if, full of care,
We have no time to stand and stare."

—W. H. Davies.

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It has been said that "whatever pleases the palate, nourishes." So spices play a very important part in our enjoyment of foods and in the nourishment we derive from them.

Spices are derived from various parts of numerous aromatic plants and vegetables—from root, stalk, bark, leaf, fruit and seed. Ginger is from the root, celery from the stalk, cinnamon from the bark, bay from the leaf, pimento from the fruit, and nutmeg from the seed.

Other countries use spices almost unknown in this part of the world. How many of us recognize all of the following incomplete list?—Clove, cassia, allspice, mace, caper, cardamon, pepper, coriander, grains of paradise, anise, dill, caraway, basil, chervil, fennel, summer savory, parsley, sage, sweet marjoram, mint, tarragon, onion, leek, garlick, saffron, turmeric, curry, mustard, horse radish, chilies, cayenne.

The best known peppers are: Tellicherry, Singapore and Lampong. Penang island produces more than half the pepper grown.

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1923

OCCUPATIONAL THERAPY EXHIBIT AND PROGRAM AT ALLENTOWN

By MARY L. PUTMAN, Pennsylvania State Department of Public Welfare, Harrisburg

A meeting of widespread interest was recently held at Allentown, Pa. Through the efforts of Dr. William Sandy, distinguished physicians, psychologists, nurses, hospital superintendents, members of hospital boards, social service workers and occupational therapists, in all an audience of over 500, assembled to see the occupational therapy exhibit and hear the program.

Those who heard Mr. van de Wall's splendid paper on music at the Atlantic City convention and those who did not have the opportunity, will alike be interested in the following summary of Mr. van de Wall's address at the Allentown meeting.

For many types of mental disease "he who brings music has the key to the inmost soul of the sick patient," said Mr. van de Wall. Many types of mental cases, notable dementia praecox, may be aroused from their self-centered attention to an interest in things apart from themselves. Besides the entertainments and concerts that are often given in programs for patients, music should be developed as an activity *by the patient for the patient*. Patients should be grouped for singing on the wards; adaptations of folk songs and dramatized songs, such as 'Goodnight Ladies' which seems to have a particular appeal for groups of men patients, community singing and costume pageants."

A description was then given in detail of a successful Christmas pageant conducted at Central Islip, Long Island, in 1922. Mr. van de Wall stated that insanity is caused by all kinds of forces, mental, physical and social. In many cases there is a feeling of insurmountable difficulty, dread of disaster. The patient avoids reality and lives in fancy. Music helps to fight this mental tendency and guide the mind to healthier planes, sometimes to a period before the onset of the mental conflict. It enables the mind to concentrate, energizes the will for action. "Music," he declared, "is a recreational activity which serves both as a satisfaction of conscious desires and as a compensation for subconscious repressed cravings, which are either of a socially constructive or destructive nature. It stimulates the human organism to energetic reactions of varying types. Music is, therefore, in its place in an institutional curriculum when it is used as a stimulant of constructive energy in a program which in its totality makes for physical, mental and moral regeneration."

During the afternoon the Danceland Orchestra furnish-

ed delightful music. At the conclusion of the addresses the patients in the audiences went to the platform and under Mr. van de Wall's leadership with orchestral accompaniment rendered the following music:

The Star Spangled Banner.

The Battle Hymn of the Republic.

Sweet and Low.

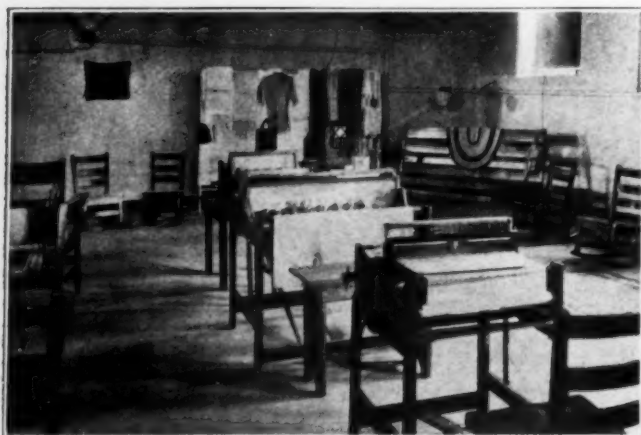
The Long, Long Trail.

A soprano and alto duet, "All Through the Night," was very pleasing. In turn a women's sextet with chorus, gave "Old Kentucky Home," and a man's sextet of convalescent soldiers sang "Love's Old Sweet Song."

It was interesting to note that the eighty patients singing were a mixed group, picked from various wards, including disturbed as well as convalescent. They had not been previously drilled except for a short rehearsal. Their evident pleasure in singing and responsiveness to the leaders directing was a strong demonstration and appeal for the need of music in institutions as outlined in Mr. van de Wall's talk.

Mrs. Slagle spoke briefly on "Occupational Therapy in Hospitals for Mental Diseases." In opening, she expressed her pleasure in cooperating with the Pennsylvania state program for mental health, and also her interest in the Allentown Hospital and Dr. Klopp's work, which began with her interest in occupational therapy ten years ago. In comparing the occupational programs of today with the first discussion of the subject ten years ago at Johns Hopkins Hospital, Mrs. Slagle emphasized the balanced days for groups of patients in state hospitals; and the twenty-four hour day program that brought into play every type of employee in the state institution where everyone was doing his part under the direction of the physician to help in the restoration process of the mental patient. The importance of the occupational therapy program coming under the medical supervision was stressed. It is obviously not for the occupational therapist to go on the ward and select patients. The physician should know why he does or does not want the patient to have occupational work at a given time. This balanced program was discussed some years ago and is now prevalent in more states than one. Mrs. Slagle stated for those not so familiar with the great problem in state institutions that the problem in Pennsylvania from a numerical standpoint is less than in New York; New York has a population of 40,000 mental cases, Pennsylvania 20,000.

"It is a very difficult thing to know just where to begin and where to end when you want to help all, but obviously the greatest emphasis of our work must be put on the



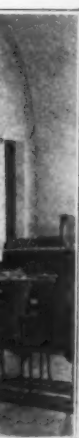
Two scenes in the occupational therapy workrooms at Allentown State Hospital, Allentown, Pa., where the recent exhibit and program were held.

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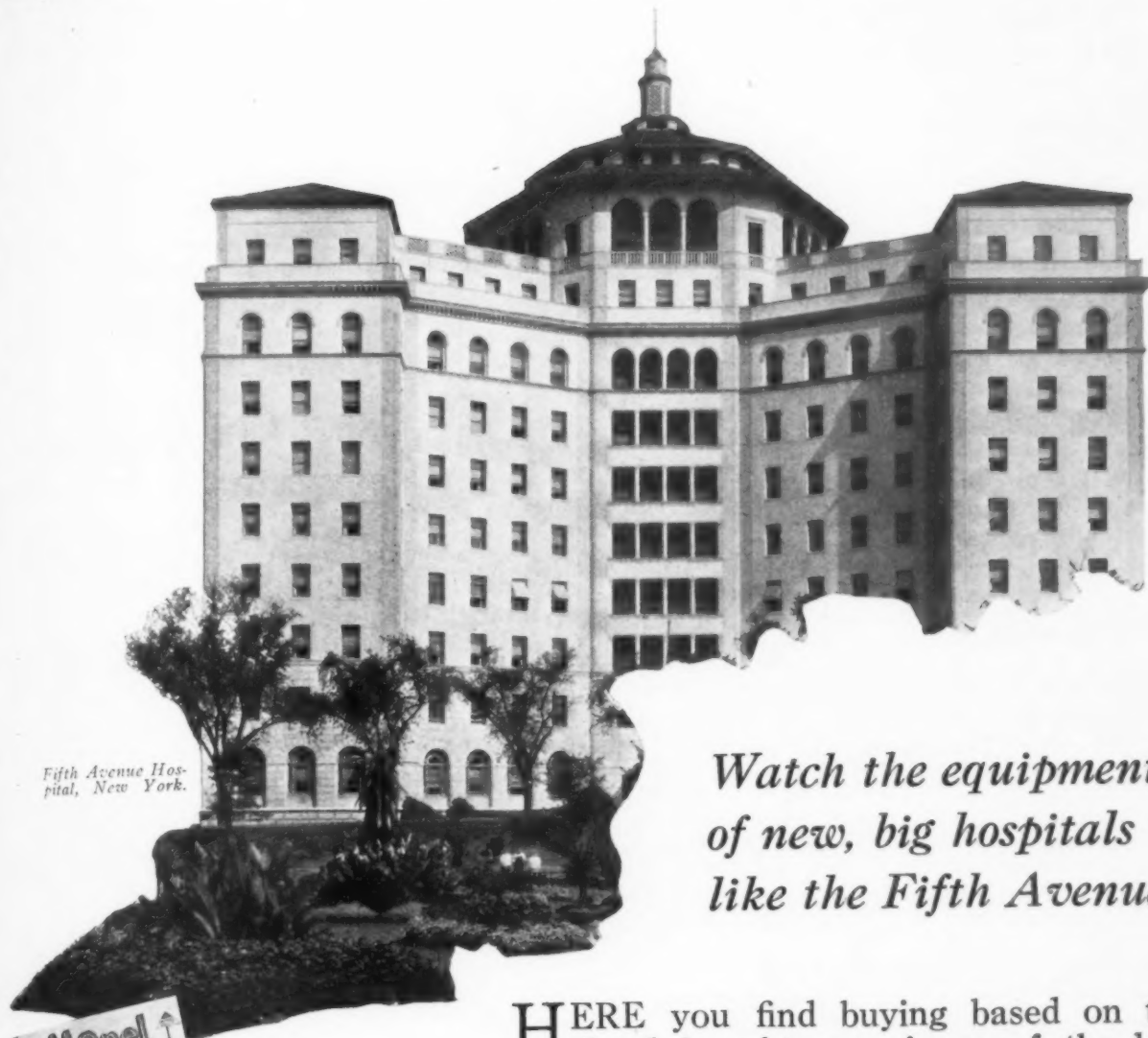
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Fifth Avenue Hos-
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*Watch the equipment
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Monel metal

When using advertisements see Classified Index, also refer to YEAR BOOK.

dementia praecox cases because they dominate to such an extent in our state hospital population," Mrs. Slagle declared. "We have in New York and other states 65 per cent dementia praecox cases. Among the ex-service men a very much higher percentage; and therefore all those who are given the care of that type of patient must focus their attention in such a way that he may return to community life for the balance of his days."

Mr. T. B. Kidner, president of the national association, spoke on "Occupational Therapy and Industrial Rehabilitation." The rehabilitation of the disabled is an enormous question, he declared. During the World War the nation recognized that it must put every disabled man on his feet, teach him to earn his living, give him an occupation in which he might prove 100 per cent efficient. Mr. Kidner stated that for many years Pennsylvania has been in the lead on the rehabilitation problem. Pennsylvania was doing it before the federal government passed the act. Today thirty-eight states have set up vocational training and hundreds of men are back at work. An example of the need of intelligent solving of the occupational therapy and rehabilitation problem is shown by the following case:

One man, because he was paralyzed from the waist down, has been a recipient of charity, his wife doing what work she could. He was taken hold of by the rehabilitation board under this act. He was taught a trade that he could use and he is at work, earning \$35 to \$48 a week, and today he is a self-respecting citizen because he is no longer an object of charity.

Hand in hand with doctors who have been working out the problem for occupational therapy in relation to mental cases during the past years, others have been working in their lines, as for instance, the industrial physician in great factories. Some of the best hospitals we have today are factory hospitals. The doctor is working side by side with the recreational adviser in all cities of our land. It is impossible to keep up with the great work of occupational therapy at present. Preparations are being made and workers trained. There is no type of hospital in which occupational therapy cannot be applied without benefit to the patient. Hospitals in any capacity must meet the demand for it and understand what it means.

Mr. Kidner expressed his pleasure in visiting Allentown saying Pennsylvania and the community in which the Allentown Hospital is situated should be congratulated in having one of the best institutions and best occupational therapy departments that he has seen.

OHIO SUPERINTENDENTS AND DIETITIANS WILL MEET THIS MONTH

The ninth annual meeting of the Ohio Hospital Association and the second annual meeting of the Ohio Dietetic Association will be held in conjunction, May 22-24 at Memorial Hall, Columbus, Ohio. A commercial exhibit will be held in connection with the conventions, headquarters of which are at Hotel Deshler. The following program has been announced:

Tuesday Morning, May 22

Registration.

Meeting of committees.

Inspection of commercial exhibits.

Tuesday Afternoon

Address of Welcome.

President's address, Frank E. Chapman, director, Mount Sinai Hospital, Cleveland.

Report of executive secretary, Mary E. Surbray, Cleveland.

Report of committee on standardization of vacations, C. B. Hildreth, Cleveland.

Report of committee on nursing education, Dr. E. R. Crew, superintendent, Miami Valley Hospital, Dayton.

Address, "The Crippled Child in Ohio" E. F. Allen, president, Ohio Society for Crippled Children, Elyria.

Report of state nurses' meeting, Grace Allison, R.N., principal of training school, Lakeside Hospital, Cleveland.

Report of special committee on building code.

Round table on building problems, Charles F. Amsley, chairman.

Inspection of commercial exhibits.

Wednesday Morning, May 23

Inspection of commercial exhibits.

Round table on administration, Mary E. Yager, superintendent, Maternity and Children's Hospital, Toledo, chairman.

Round table on records and record keeping, Dr. Charles E. Holzer, Holzer Hospital, Gallipolis, chairman.

Address, "The Past, Present and Future of the Ohio Hospital Association," Dr. A. C. Bachmeyer, superintendent, Cincinnati General Hospital, Cincinnati.

Wednesday Afternoon

Address, "The Requisites of Good Hospital Administration," Rev. M. F. Griffin, St. Elizabeth's Hospital, Youngstown.

Round table on housekeeping and laundry, B. W. Stewart, superintendent, Youngstown City Hospital, chairman.

Round table on dietetics, Alice P. Thatcher, superintendent, Christ Hospital, Cincinnati, chairman.

Inspection of commercial exhibits.

Wednesday Evening

Dinner.

Address, F. W. Ramsey, president, Cleveland Welfare Federation and general chairman, Cleveland Community Fund.

Thursday Morning, May 24

Inspection of commercial exhibits.

Address, "The Function of the Sanatoriums in the Anti-tuberculosis Campaign."

Address, "The Problems of the Hospitals from the point of view of:

1. The State Department of Health."
2. The Board of State Charities," Harry Howett, director of Child Care.
3. The Nurse Examining Board," Miss Caroline V. McKee, chief examiner.
4. The Industrial Commission."

Address, "The Work of the Ohio Public Health Association," Dr. R. G. Paterson, executive secretary.

Report of committees.

Constitution and rules.

Membership.

Auditing.

Nominating.

Election of officers.

Unfinished business.

Adjournment.

Among those who will address the dietitians on their three-day program are: Dr. Charles F. Hoover, professor of medicine, Western Reserve University, Cleveland; Dr. A. C. Bachmeyer; Professor Mary E. Parker, head of household administration department, Western Reserve University; and Guy J. Clark, purchasing agent of the Cleveland Hospital Council.

Miss E. Moreland Gerghy is president of the Ohio association and Miss Emma Eggert, secretary.

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Catgut Ligatures

Of great strength and absolute sterility. Boilable, Non-boilable, plain and chromic, also iodized, 60-inch lengths.

Pituitary Liquid

Surgical 1 c.c. ampoules, Obstetrical 1/2 c.c. ampoules, six in a box. Free from preservatives, physiologically standardized.

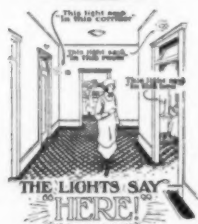
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May be had by using Suprarenalin Solution or Ointment. Apply to nose, eyes and throat.

Suprarenalin Solution 1:1000 is stable, uniform and non-irritating.

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MEETINGS, CONVENTIONS AND CONFERENCES

CONNECTICUT HOSPITAL ASSOCIATION MEETS

THE semi-annual meeting of the Connecticut Hospital Association was held on Saturday, April 7, at Grace Hospital, New Haven. Members and friends to the number of forty-two represented fourteen of the hospitals in Connecticut.

The morning session covered the business transactions, including reports from the various committees. Dr. Bradstreet of Meriden presented the report of the committee on by-laws, which was accepted. These reports were prepared with a view to facilitating the work of the membership committee, and hospitals eligible for membership are clearly classified. It was agreed that hospitals maintaining accredited training schools are eligible without question, and that hospitals not in this class be approved for membership by the executive committee. One of the chief aims of the organization is to help small hospitals and it was opined that this could be accomplished through their membership in the association.

Miss Metcalf of Waterbury submitted the report of the committee on nursing. The committee voiced the need of a full time worker to speak in the various high schools of the state to carry on training school publicity.

The rental of Bal-opticon slides to be circulated through the training schools of the state, providing illustrated lectures on history of nursing, was effected through the donation by the association of \$50 for this purpose.

Mr. E. Webber, president of the Stamford Hospital and a member of the legislative committee, reported that there is now a bill before the judiciary committee that would aid hospitals. The bill is entitled "An Act Concerning a Lien on Accident and Liability Insurance policies by Hospitals" and the entire organization voted heartily in favor of it.

After the adjournment of the morning session an hour's recess was enjoyed. The meeting repaired to the attractive solarium on the sixth floor of the new addition, where a delightful luncheon was served by Miss Hunter and her assistants. The comfort of the solarium added to the enjoyment of the afternoon session, which was called to order immediately after luncheon.

The detailed finance report and per capita statistics, prepared and presented by Mr. Sands of Meriden, may be cited in connection with Mr. E. Kent Hubbard's talk on state appropriations to hospitals. Mr. Hubbard is a member of the state board of finance and also president of the Middlesex Hospital, Middletown, Conn. There are thirty-two hospitals receiving state appropriations. Twenty-eight of these sent reports of their financial condition to the state boards of finance, from which Mr. Sands prepared his interesting statistics. Last year the state

paid \$3,118,383 to these twenty-eight hospitals. As 72,063 patients were cared for, this means that the state paid approximately \$43.27 per patient. It is not the desire of the board of finance to favor one hospital or slight another in the matter of appropriations. Heretofore hospitals have had the privilege of requesting the needed amount. Since it is not advisable that each hospital should appear personally before the board, it is suggested that a committee composed of a representative from each hospital in the state be the agent to determine the amount of money needed for their proper conduct. Due consideration should be given to endowments, yearly losses and gains and the resulting decision should be submitted to the state board of finance for careful consideration.

Dr. Lewis A. Sexton, superintendent of Hartford Hospital, again referred to the urgent need of state infirmary for chronic and incurable cases. Many such patients are now in hospitals, thereby excluding others with acute conditions which demand immediate care. At the same time hospitals are turning away numerous chronic cases, which are deserving of every consideration that the state of Connecticut can give them.

The round table showed that practically all hospitals are facing the same every day problems, and much help was gained from the rapid fire of questions and answers which enlivened the discussions. The topics under consideration covered a wide range, including inquiries as to the rules governing time of visits of the hospital medical staffs; reduction in hospital rates to doctors and clergymen; the intern and the history; medical follow-up notes on charts and group nursing. Regarding this last topic information was volunteered from but one member, who related how the question is handled by a hospital in Minnesota. This hospital was paying the nurses five dollars a day and the nurses lived out. Two patients were taken care of by each nurse on twelve hour duty with hours off. The charge for the private room without the nurse was six dollars and with day and night nurses, with board, the charge was \$14.75 per day. In order to establish this group nursing in a hospital, it would be necessary that such nurses be guaranteed a continuous demand for their services.

The advisability of registering in New York state was discussed. Seven of the hospitals represented were registered in New York. Since New York maintains such a definite standard in allowing nurses to register and since the cost would be only the expenses of an inspector to visit the training school annually, it was considered very advantageous to give nurses the privilege of registering in New York.